# Toxicology Research Laboratory

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Title Page

Volume 1 of 3

Revised Draft Report for Task Order No. UIC-5A

THIRTEEN WEEK ORAL TOXICITY STUDY OF WR238605 WITH A THIRTEEN WEEK RECOVERY PERIOD IN DOGS

Sponsor: US Army Medical Materiel

Development Activity

Test Article: WR238605

Contract No.: DAMD17-92-C-2001

Study Director

Barry S. Levine, D.Sc., D.A.B.T.

In-Life Phase Completed On

June 11, 1993

Performing Laboratory

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ContractNo.: DAMD17-92-C-200

Task Order No.: UIC-5A UIC/TRL Study No.: 097

#### STATEMENT OF COMPLIANCE

To the best of my knowledge, Study No. 097 entitled "Thirteen Week Oral Toxicity Study of WR 238605 with a Thirteen Week Recovery Period in Dogs" was conducted in compliance with the Good Laboratory Practices regulations as published in 21 CFR 58, 40 CFR 160 and 40 CFR 792 in all material aspects.

The protocol for this study was approved by the UIC Animal Care Committee.

Signature	
Study Director	
Barry S. Levine, D.Sc., D.A.B.T.	Date

#### QUALITY ASSURANCE STATEMENT

STUDY TITLE: THIRTEEN WEEK ORAL TOXICITY STUDY OF WR238605 WITH A THIRTEEN WEEK RECOVERY PERIOD IN DOGS

STUDY NUMBER: 097

STUDY DIRECTOR: BARRY S. LEVINE

INITIATION DATE: 9/1/92

This study has been divided into a series of phases. Using a random sampling approach, Quality Assurance monitors each of these phases over a series of studies. Procedures, equipment, documentation, etc., are examined in order to assure that the study is performed in accordance with the Good Laboratory Practice regulations of the Food and Drug Administration and the Environmental Protection Agency to assure that the study is conducted according to the protocol.

The following are the inspection dates, phases inspected, and report dates of QA inspections of the study.

INSPECT ON 9/1/92, TO STUDY DIR 9/1/92, TO MGMT 9/1/92

PHASES: PROTOCOL REVIEW

INSPECT ON 11/19/92, TO STUDY DIR 11/19/92, TO MGMT 11/19/92

PHASES: QUARANTINE AND ROOM ENVIRONMENT

INSPECT ON 1/5/93, TO STUDY DIR 1/6/93, TO MGMT 1/6/93

PHASES: BLOOD COLLECTION AND CLINICAL PATHOLOGY

INSPECT ON 3/9/93, TO STUDY DIR 3/10/93, TO MGMT 3/10/93

PHASES: ELECTROCARDIOGRAPHY

INSPECT ON 9/1/93, TO STUDY DIR 9/2/93, TO MGMT 9/8/93

PHASES: RAW DATA FROM ANALYTICAL LABORATORY

INSPECT ON 9/2/93, TO STUDY DIR 9/2/93, TO MGMT 9/8/93

PHASES: DRAFT REPORT FROM ANALYTICAL LABORATORY

INSPECT ON 9/10/93, TO STUDY DIR 9/10/93, TO MGMT 9/23/93

PHASES: CARDIOLOGY DRAFT REPORT

INSPECT ON 9/17/93, TO STUDY DIR 9/17/93, TO MGMT 9/17/93

PHASES: PATHOLOGY DRAFT REPORT

INSPECT ON 9/13-17/93, TO STUDY DIR 9/17/93, TO MGMT 9/27/93

PHASES: RAW DATA

INSPECT ON 9/30/93, TO STUDY DIR 9/30/93, TO MGMT 10/1/93

PHASES: DRAFT FINAL REPORT

INSPECT ON 5/5/94, TO STUDY DIR 5/5/94, TO MGMT 5/5/94

PHASES: REVISED DRAFT REPORT

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#### Signature Page

#### THIRTEEN WEEK ORAL TOXICITY STUDY OF WR238605 WITH A THIRTEEN WEEK RECOVERY PERIOD IN DOGS

TRL Chemical No.: 0720614

> Sponsor: US Army Medical Materiel

> > **Development Activity**

Fort Detrick

Frederick, MD 21702-5014

Sponsor

George J. Schieferstein, Ph.D. Representative:

TOXICOLOGY RESEARCH LABORATORY (TRL) Testing Facility:

University of Illinois at Chicago (UIC)

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Barry S. Levine, D.Sc., D.A.B.T.

Date

Study Director

Study Initiation: December 10, 1992 Dosing Initiation:

September 1, 1992

In-Life Completion:

June 11, 1993

Contract No.: DAMD17-92-C-2001

Task Order No.: UIC-5A UIC/TRL Study No.: 097

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#### 1. SUMMARY

This study evaluated the toxicity of WR238605 in dogs following thirteen weeks of daily oral (gavage) administration. A thirteen week recovery period was included for all groups. Dose levels studied were 0 (vehicle control), 0.1, 2.0 and 6.0 mg base/kg/day. The results are summarized in Table 1. The primary toxic effects of WR238605 were seen in the lungs and RBCs. Drug treatment was associated with hemolytic anemia which was supported by reticulocytosis, bone marrow hypercellularity, decrease in bone marrow M/E ratio, splenomegaly, extramedullary hematopoiesis, and hemosiderosis in the liver and spleen. Mild hepatotoxicity as evidenced by hepatocyte necrosis (high dose males) was supported by altered clinical chemistry values. Possibly, secondary to the hematologic alterations, congestion of retinal vessels was seen in one high dose female, which was no longer evident by the end of the recovery period. Generalized or secondary toxic effects related to the stress produced by the anemic and/or methemoglobinemic state included decreases in weight gain; neutrophilic and monocytic leukocytosis; and depletion of thymic lymphocytes. Methemoglobinemia was manifested by clinical signs of cyanosis (blue gums, tongue, and sclera). Lung lesions induced by WR238605 included alveolar proteinosis and subacute inflammation. inflammation of the alveolar and bronchiolar epithelium developed in the recovery period. This was deemed to be part of the process of resolution of alveolar proteinosis and as such a secondary lesion to a direct treatment-related effect. All of the above described toxic effects were generally seen at the high and mid dose levels. Hemosiderosis and subacute inflammation of the liver (minimal severity), secondary to hemolytic anemia, and bone marrow hypercellularity (minimal severity) were also seen in low dose animals. However, these findings in low dose animals were not supported by alterations in clinical pathology parameters. WR238605 toxicity was essentially reversible, except for the lung lesions (subacute inflammation) and the microscopic changes secondary to the observed hemolytic anemia (hepatic hemosiderosis). Based upon the these findings, the no observed effect level (NOEL) in this study was equivocal, but was considered to be near the low dose level of 0.1 mg gove sinder affect was ford in the control aminols base/kg/day.

#### 2. INTRODUCTION

This study was conducted to determine the specific target organ toxicity, dose-response relationships and a potential no-adverse effect level of WR238605 in dogs following thirteen weeks of daily oral (gavage) administration. A thirteen week recovery period was included for all groups to assess the reversibility of toxic effects. The study was conducted in accordance with the specifications of the Sponsor, as indicated in Task Order UIC-5A. The FDA requires the use of two animal species, one which is a non-rodent, in preclinical toxicology studies. The dog is a standard and accepted non-rodent species for regulatory toxicology studies, and was specified by the Sponsor. Oral administration is the intended clinical route and was also specified by the Sponsor. All methods and procedures were conducted in accordance with the Quality Assurance Programs of the Toxicology Research Laboratory, University of Illinois at Chicago and Pathology Associates, Inc. designed to conform with FDA Good Laboratory Practices Regulations. No unforeseen circumstances affected the integrity of the study. Dosing was initiated on December 10, 1992 and the in-life portion was terminated on June 11, 1993.

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#### MATERIALS AND METHODS

#### 3.1 Test Article

WR238605 succinate (Bottle Lot No. BM 12562), a fine, pale yellow powder, was received on October 5, 1992 from Herner & Co. The chemical name of the test article is 8-[(4-Amino-1-methylbutyl)amino]-2,6-dimethoxy-4-methyl-5-(3-trifluoromethyl-phenoxy)quinoline succinate and the mole fraction of the base is 0.8. It was stored at 0 - 4°C, ambient humidity and protected from light in an amber bottle. The chemical structure is shown below.

WR238605 succinate

The test article was initially identified by GC-MS and the purity was determined to be greater than 99.9 %. The purity was re-determined following the completion of the inlife portion of the study. At that time, the purity was also greater than 99.9%. Thus, the test article was stable under storage conditions.

#### 3.2 Animals

Thirty seven male and thirty seven female Beagle dogs were obtained from Marshall Farms, North Rose, NY on November 17 and 18, 1992. The animals were approximately 6 - 7 months old (dates of birth between 4/16/91 and 5/15/91) upon arrival at the UIC AAALAC-accredited animal facility. Each animal was given a facility-unique animal number upon arrival. This number immediately appeared as a tag on a chain collar, and was additionally tattooed in the inner aspect of the ear on the same day. Animals were singly housed in runs, except as subsequently noted, in a temperature (72 + 6°F) and humidity ( $50 \pm 20%$ ) controlled room with a 12 hour light/12 hour dark cycle. Eight dogs were housed two/run (within sex) during the quarantine/pretest period, but were singly housed prior to initiation of the dosing phase. The run size, typically at least 15 square feet, was adequate to house dogs at the upper weight range as described in the *Guide for the Care and Use of Laboratory Animals*, DHHS (NIH) No. 86.23. All runs were cleaned and fresh bedding was replaced daily. The runs were sanitized once every two weeks.

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Purina Certified Canine Diet No. 5007 (Ralston Purina Company, St. Louis, MO), approximately 400 g on a daily basis (exactly 400 g on days when food consumption was measured), and tap water ad libitum from an automatic watering system in which the room distribution lines were flushed daily were provided from arrival until termination. The water was untreated with additional chlorine or HCl. The food was removed for an overnight fast (≈ 16 - 20 hours) prior to blood collection for clinical pathology and/or scheduled sacrifice. There were no known contaminants in the feed or water which were expected to influence the study. The results of the most current comprehensive chemical analyses of Chicago water are documented in files maintained by Quality Assurance.

The animals were quarantined for three weeks. During that time, the animals were observed daily for signs of illness and all unusual observations were reported to the Study Director or Clinical Veterinarian. Body weights and preliminary physical examinations were done upon arrival at the animal facility. Each dog was lightly sprayed with Para Pyrethrin Mist upon arrival for fleas, lice, and ticks. All dogs were previously vaccinated by the animal supplier against canine distemper, infectious canine hepatitis, oral papilloma, leptospirosis, parainfluenza, parvo and rabies. Blood samples were collected within three days of arrival for quarantine clinical chemistry and hematology tests, and fecal samples were collected for internal parasites examinations. Animals were examined during quarantine and approved for use by the Clinical Veterinarian prior to being placed on test. Quarantine release was documented on the Clinical Veterinarian Log by the veterinarian prior to study initiation.

#### 3.3 Experimental Design

Near the end of the quarantine/pretest period, 32 animals of each sex were selected for study on the basis of quarantine data including body weight, food consumption, clinical pathology, electrocardiograms, and ophthalmology examinations. These animals were randomized within sex into the groups shown in the following table using a restricted randomized procedure stratified by body weight. No litter mates were included in the same dose group, except for a control male and female. Following allocation to treatment groups, the animals were randomly assigned to one of six animal rooms used for this study.

Treatment <u>Group</u>	Dose Level (mg base/kg/day)	Number of Males		
1	0	4 + 4°	4 + 4°	
2	0.1	$4 + 4^{\circ}$	$4 + 4^{\circ}$	
3	2.0	$4 + 4^{\circ}$	$4 + 4^{\circ}$	
4	6.0		$4 + 4^*$	4 + 4*

\*Recovery Animals

Dose levels were supplied by the Sponsor and refer to the base.

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Four animals/dose/sex were necropsied in Week 14 after 91 or 92 days of dosing. All remaining animals were held for a thirteen week recovery period, at which time they were necropsied. The number of animals/sex/group was necessary for adequate statistical analysis.

Following treatment group allocation, the animal's number appeared on a card visible on the front of each run. The run card additionally contained the study number, test article identification, treatment group number, sex and dose level. Run cards were color-coded as a function of treatment group.

Dosing formulations were prepared every 2 weeks by suspending an appropriate quantity of the test article in vehicle (aqueous 1% methylcellulose/0.4% Tween 80). Stability was based on data from a previously conducted dog toxicity study by gastric intubation (UIC/TRL Study No. 047). WR238605 dosage formulations were also shown to be homogeneous in that study. Samples of all dosage formulations used in Weeks 1 & 2, 7 & 8 and 13 were analyzed for test article concentration prior to their use. The results of these analyses are included in Table 2 and in Appendix 1.

The test article were suspended in the vehicle to result in concentrations necessary to administer the dosage formulations at a volume of 1 ml/kg. The specific volume (ml) administered was calculated on the basis of each animal's most recent body weight. The quantity of the test article was calculated as mg base/kg/day. The test article dosage formulation was administered by gastric intubation once daily for 91 or 92 days beginning on December 10, 1992 (Day 0). Following administration of the appropriate volume of the dosing formulations or vehicle, 20 ml of distilled water was administered to flush down any test article residuum. The animals were dosed up to and including the day prior to scheduled necropsy except for the recovery animals, which were dosed for 91 days. Control animals received the vehicle (aqueous 1% methylcellulose/0.4% Tween 80). The dogs weighed 9.6 - 11.3 kg (males) and 7.5 - 10.6 kg (females) on Day 0, and were approximately 7 - 8 months old at initiation of treatment.

Non-fasted body weights were recorded on Days -8 and 0, and weekly thereafter. Fasted weights were collected at scheduled termination. Clinical signs were recorded once daily, approximately 1 - 2 hours after dosing. The general behavior, posture, locomotion, breathing pattern and coat were observed for all animals. The animals were also observed immediately prior to dosing and in the afternoon for moribundity/mortality. During the recovery period, clinical signs were recorded once daily in the morning and a moribundity/mortality check was conducted in the afternoon. Physical examinations (clinical observations) which included examination of eyes and all orifices were conducted in Week -1, on Day 0 prior to dosing, and once weekly thereafter. Food consumption was measured for all animals over an approximate 24 hour period once weekly commencing with Week -2. All dogs were examined by indirect ophthalmoscopy prior to study initiation (Week -3) and during Week 13, and in Week 26 for the recovery animals. The eyes were dilated with 1% atropine sulfate

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prior to the examination.

Hematology and clinical chemistry parameters were measured following an overnight fast in Weeks -3, -1, 2, 4, 8, and 13. Hematology and clinical chemistry tests were also performed for the recovery animals in Weeks 18 and 26. The overnight fasted animals were unanesthetized and sufficient blood was collected from the cephalic vein to measure the following parameters. The samples were processed in the same random order as collected. Water was available *ad libitum* during all fasting periods. Clinical pathology methodology is contained in Appendix 2.

#### Hematology

Activated partial Mathromboplastin time (APTT)

<sup>a</sup> Erythrocyte count and morphology

Heinz bodies Hematocrit

Hemoglobin

Leukocyte count, total and differential

Mean corpuscular hemoglobin (MCH)

Mean corpuscular hemoglobin concentration (MCHC)

Mean corpuscular volume (MCV)

<sup>b</sup>Methemoglobin Platelet count

Prothrombin time

Reticulocyte count

#### Clinical Chemistry

Alanine aminotransferase (ALT/SGPT)

Albumin

Albumm

Albumin/globulin ratio

(calculated)

Alkaline phosphatase

Aspartate aminotransferase

(AST/SGOT)

Calcium

Gamma glutamyl

transferase (GGT)

Globulin (calculated)

Glucose

Haptoglobin

Lactate dehydrogenase (LDH)

Inorganic phosphorus

Potassium

Sodium

<sup>&</sup>lt;sup>a</sup>Includes nucleated RBCs.

<sup>&</sup>lt;sup>b</sup>Measured with a Co-oximeter (Instrumentation Laboratory). The assay was performed within one hour of sample collection. The specimens were kept on wet ice prior to analysis.

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#### Clinical Chemistry (contd.)

Chloride Cholesterol Creatinine Total bilirubin Total protein Triglycerides

Creatine kinase (CK)

Urea nitrogen (BUN)

Urine specimens were collected in Weeks -1, 2, 4, 8 and 13, and during the recovery period in Weeks 18 and 26. The following parameters were measured.

#### Urinalysis

Qualitative

Bilirubin Glucose Nitrite pH Protein

Ketones
Occult Blood

Urobilinogen

Leukocytes

Color

Specific Gravity

Microscopic examination of spun sediment

Blood samples were also collected to provide approximately 1 ml of plasma for the measurement of drug levels in Weeks -1, 4, 8, 13, 18, and 26. The plasma samples were sent to Dr. Emil Lin as specified by the Sponsor. The results of the plasma drug level analysis are not included in this study report.

ECG tracings were collected from all dogs during the pretest period and in Week 13, and in Week 26 for the recovery animals. The following leads were measured: I,  $aV_F$  and  $V_3$ . Heart rate, PR and QT intervals were measured from Lead I. All recordings had a sensitivity of 1 mV/cm and a recording rate of 50 mm/sec. The recordings were made with the animal in the standard position of right lateral recumbency. In order to obtain all of the ECG's within a few days at each time point, the recordings were collected throughout the day during the baseline and recovery periods, but were performed in Week 13 in the afternoon, at least 2 hours after dosing.

Four animals/dose/sex were killed and necropsied in random order over a two consecutive day period (Days 91 and 92). The remaining recovery animals were killed and necropsied in random order at the onset of Week 27, after a thirteen week recovery period. This was accomplished by sodium pentobarbital anesthesia and exsanguination. An extensive necropsy was performed under the direction and supervision of the pathologist. Terminal body weights were collected prior to routine sacrifice.

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The necropsy procedure was a thorough and systematic examination and dissection of the animal viscera and carcass to include the external surface, all orifices, the cranial cavity, external surface of the brain, cross section of the spinal cord, the nasal cavity and nasal turbinates, thoracic, abdominal and pelvic cavities and their viscera, and cervical tissues and organs. The following tissues and organs were collected and fixed in 10% neutral buffered formalin (NBF).

\*Adrenal glands

Aorta (thoracic)
\*Brain
(fore-, mid-, and hind-)

Cecum

Colon

Diaphragm Duodenum Esophagus

Eyes and optic nerve

Gallbladder Gross lesions

\*Heart

Ileum Jejunum

\*Kidneys

\*Liver (with gallbladder

drained)
Lungs/Bronchi

Lymph node (submandibular

and mesenteric)
Mammary gland

Muscle, skeletal

\*Ovaries Pancreas Pituitary Prostate

Rib with marrow

Rib with costochondral junction Salivary gland (mandibular)

Sciatic Nerve

Skin

Spinal cord (thoracic)

\*Spleen Stomach

\*Testes with epididymides

Thymus

\*Thyroid gland with parathyroids

Tongue Tonsil Trachea Ureter

Urinary bladder

\*Uterus

The above tissues from all dogs sacrificed at scheduled necropsy in Week 14 were embedded in paraffin, sectioned, stained with hematoxylin and eosin, and examined microscopically. Those tissues/organs for which treatment-related lesions were observed were examined microscopically for all recovery animals.

Myeloid:erythroid (M:E) ratios were determined from a rib bone marrow smear for all animals at the Week 14 necropsy. Because treatment-related changes were seen at the end of the dosing period, M:E ratios were also determined from the recovery animals.

<sup>\*</sup>Weighed at scheduled necropsy. Paired organs were weighed as a unit.

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#### 3.4 Statistical Analyses

For each sex, Analysis of Variance tests were conducted on body weight, weekly body weight gain, total body weight gains, ECG measurements, hematology, clinical chemistry and organ weight data. Organ weight analyses included absolute weights, and weights relative to both body and brain weights. If a significant F ratio was obtained ( $p \le 0.05$ ), Dunnett's test was used for pair-wise comparisons with the concurrent control group . Food consumption data were analyzed by the Kruskal-Wallis test. If a significant effect was obtained ( $p \le 0.05$ ), the Mann-Whitney U test was used for pair-wise comparisons with the concurrent control group. All statistical analyses procedures compared treated to control animals at each time point. Data were not corrected for baseline values, except that body weight analysis included absolute values, weekly changes and total weight changes.

#### 4. RESULTS

#### 4.1 Dosage Formulation Analyses

Dosage formulation analysis results are shown in Table 2. The Analytical Chemistry Report is contained in Appendix 1. Only tested formulations which were within 10% of their target concentration were used. Although two of nine dosage formulations were initially not within 10% of their target concentration and were re-formulated for re-analysis, one of the dosage formulations was initially within 15%. Small variances therefore occurred in target concentrations, but were not considered to have an impact on the study. Since animals may gain or lose weight during the course of a week during which a single formulation is used, the exact dose (mg/kg/day) will vary as a function of time. It is typically assumed, however, that over the course of an entire study, small variances may occur in both directions. As such, any such changes probably are negligible over time, and the average dose received approximates the target dose.

#### 4.2 Mortality/Clinical Signs

The summaries of clinical signs are presented in Table 3. Individual observations and daily incidence of clinical signs are contained in Appendix 3.

None of the dogs died in this study. Treatment-related clinical signs included blue tongue, blue gums and blue sclera in dogs at the mid and high doses except for one mid dose female. The severity of these signs were rated as follows: Slight (barely perceptible, slight blue tinged color; severity no. 1); Moderate (easily seen, blue color; severity no. 2); and Severe (marked, deep blue-purple color; severity no. 3). The onset of this cyanotic state was approximately 1 - 2 weeks after treatment initiation, and its severity progressed with time. The cyanotic state in mid and high dose animals was limited to moderate, easily seen blue gums, tongue, and sclera, except for one high dose

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female (#7546) which demonstrated severe cyanosis as a marked, deep blue-purple tongue. The moderately severe (easily seen, blue color) clinical signs of cyanosis were observed at a greater frequency in high dose animals than in mid dose animals. In low dose animals, blue tongue (slight) was seen in one male and in four females, and blue sclera (slight) was observed in two males and in six females. Blue gums (slight) were also seen once in a low dose female. The biologic significance of these apparent signs of cyanosis seen in the low dose animals is uncertain.

In Week 11, two high dose males demonstrated signs of mild dehydration on three occasions. No other treatment-related clinical signs of toxicity were seen.

After cessation of treatment, the severity and incidence of these signs gradually decreased. In males, moderate blue tongue, gums and/or sclera were no longer observed after Day 92, however slight cyanotic features were observed up to Day 130. In females, the cyanotic state persisted for a longer duration. Moderate cyanosis, described as an easily seen blue tongue was seen until Day 114 and slight, barely perceptible blue tongue, sclera, and/or gums were seen until Week 7 of the recovery period. Thereafter, the occasional observation of a slight, barely perceptible blue tongue or sclera was not considered to be biologically significant. By the end of the recovery period, all clinical signs disappeared.

#### 4.3 Body Weight

The summary of body weights are presented in Tables 4.1 - 4.4. The summary of weight gains are presented in Tables 5.1 - 5.4. Summaries of male and female body weights are also graphically depicted in Figures 1 and 2. Individual body weights and weight gains are contained in Appendix 4.

During the treatment period, decreased body weight gain and/or body weight loss was seen in mid and high dose animals (Tables 5.1 and 5.2). Although their rates of body weight gain were similar to control animals during the recovery period, their mean body weights remained somewhat lower than corresponding control animals, except possibly for mid dose males (Table 5.3 and 5.3). Body weights were unaffected in low dose animals.

#### 4.4 Food Consumption

The summary of daily food consumption are in Tables 6.1 - 6.4. Individual food consumption data are shown in Appendix 5. Food consumption was not significantly affected in either sex by WR238605 treatment.

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#### 4.5 Clinical Pathology

Summaries of clinical chemistry tests are presented in Tables 7.1 - 7.44. Individual clinical chemistry data are in Appendix 6. Summaries of hematological tests are in presented in Tables 8.1 - 8.4. Individual hematology data are in Appendix 7. Individual urinalysis data are in Appendix 8.

WR238605-treatment produced changes in several clinical chemistry parameters suggesting a mild hepatotoxic affect. Significant increases in serum AST were seen in high dose males in Weeks 8 and 13, and in mid dose males in Week 8 (Table 7.3). A mild elevation in serum AST levels were also observed in high dose females in Week 13 (Table 7.4). Serum ALT levels were slightly but significantly increased in high dose males in Week 2 (Table 7.1). This was not seen at any other time point or in high dose females. Albumin decreases and/or reductions in albumin/globulin ratios were seen in Weeks 4 and 13 in high dose males and in Weeks 4, 8 and 13 in high dose females (Tables 7.7, 7.8, 7.11 and 7.12). Total protein levels, however, were not altered by treatment. Recovery from serum AST, ALT and albumin changes was evident by Week 18 (the first recovery period).

A significant increase in serum bilirubin levels was seen in high dose males but not females in Week 2 (Tables 7.13 and 7.14). This was supported by increased levels of bilirubin in the urine of these animals and in mid dose males in Week 4, although these latter animals did not demonstrate hyperbilirubinemia (Appendix 8).

Serum haptoglobin levels were below the limit of detection (< 13 mg/dl) on several occasions for control males and less frequently for low and mid dose males. Undetectable serum haptoglobin levels were frequently observed for females, especially for control and low dose females throughout the study. Consequently, these levels of serum haptoglobin below the limit of detection produced an apparent reduction in number of animals tested. Even so, significantly elevated serum haptoglobin levels were seen in high dose males and females in Weeks 4 and 8, and in mid dose males in Week 4 [Tables 7.43 and 7.44]. Biologically significant, but statistically insignificant increases in haptoglobin were seen in high dose animals in Week 13, and in mid dose males in Week 8 and mid dose females in Week 4. By the first recovery time point (Week 18), measurable haptoglobin levels were generally similar to control animal values. The occurrence of increased levels of this protein, which is synthesized by hepatocytes, is indicative of an inflammatory response, i.e. an acute phase reaction.

Significant methemoglobinemia was seen in high and mid dose animals throughout the treatment period (Tables 8.19 and 8.20). Methemoglobin levels generally remained constant during the treatment period. Recovery from methemoglobinemia occurred by the first recovery period (Week 18) in mid dose animals, but methemoglobin levels remained significantly elevated at that time in high dose animals. Methemoglobin levels

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in high dose animals returned to levels seen in control animals by the end of the recovery period (Week 26).

Statistically significant reductions in RBC count were evident by Week 2 in high dose females and by Week 4 in high dose males and in mid dose animals (Tables 8.1 and 8.2). Corresponding decreases in hemoglobin levels and/or hematocrit occurred in these animals in Week 4 (Tables 8.3 - 8.6). Recovery was apparent, however, by Week 8. In high dose females, RBCs were anisocytotic in Weeks 2 and 4. Anisocytotic RBCs were observed in one high dose male in Week 2 and in one mid dose male in Week 4. In response to the anemic state, increased MCV was seen in high dose females and possibly males in Week 4 (Tables 8.7 and 8.8). These macrocytic RBCs were somewhat hypochromic (Tables 8.11 and 8.12), although their hemoglobin content (MCH) was similar to control animals (Tables 8.9 and 8.10). As with RBC count, these effects were no longer evident by Week 8. Compensatory responses to the anemic state included reticulocytosis in high dose animals (Weeks 4, 8 and 13) and in mid dose animals (Week 13; males and Weeks 4 and 8; females), as shown in Tables 8.13 and 8.14. An increased number of nucleated RBCs in high dose animals was also observed in Week 4 (Tables 8.15 and 8.16). Heinz bodies were not increased as a consequence of WR238605 treatment (Tables 8.17 and 8.18).

Mild to moderate thrombocytopenia was seen in Weeks 2 and 4 in high and to a somewhat lesser extent in mid dose animals (Tables 8.21 and 8.22). This was supported by the individual hematology morphology results (blood smears) in Appendix 7, which demonstrated marked to moderate decrease in platelet number in mid dose males (Weeks 2, 4, and 8); in high dose males (Weeks 2, 4, 8, and possibly 13); in mid dose females (Weeks 2, 4, and 8); and in high dose females (Weeks 2, 4, 8 and possibly 13). This was not apparent thereafter, nor was it seen in the low dose. The thrombocytopenia was accompanied primarily in high dose animals with a slight increase in platelet size, as estimated from blood smears (Appendix 7).

Prothrombin time was slightly reduced in both mid and high dose animals in Week 4 only (Tables 8.23 and 8.24), but activated partial thromboplastin time was unaffected by WR238605 treatment (Tables 8.23 and 8.24).

Leukocytosis was evident in high dose and to a lesser extent in mid dose males and possibly mid dose females primarily during the latter half of the treatment period (Tables 8.27 and 8.28). This leukocytosis was generally characterized by increased numbers of mature neutrophils and monocytes (Tables 8.29, 8.30, 8.35 and 8.36). In response, slight increases in immature neutrophils were also seen sporadically in mid and high dose females (Table 8.32) Complete reversal of the leukocytosis was apparent by Week 18.

Except for the previously described hyperbilirubinemia in mid and high dose males, urinalysis measurements were not affected by WR238605 treatment (Appendix 8).

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No other clinical pathology changes appeared to be related to WR238605 treatment. Sporadic increases and decreases were seen, but were not considered biologically significant. Sporadic changes seen in high dose animals included a minimal but statistically significant elevation in serum triglycerides in high dose males but not females in Week 8 (Table 7.21) and slight decreases in inorganic phosphorus levels in high dose males in Week 2 (Table 7.39). As these changes were only seen once and in only one sex in the treatment period, they were not considered to be biologically significant.

#### 4.6 Electrocardiography

The Cardiology Report is contained in Appendix 9. There were no significant ECG changes produced by WR238605 treatment. Any changes observed were considered incidental findings and not test article-related. Heart rate and PR and QT intervals were not affected by treatment.

#### 4.7 Ophthalmology Examinations

The Ophthalmology Report is contained in Appendix 10.

In Week 13, one high dose female had congestion of the retinal vessels. This finding would be consistent with alterations in hematologic values (hemoglobin or hematocrit). The retinal congestion had resolved by Week 26. All other animals appeared similar to their baseline exam.

#### 4.8 Organ Weights

Organ weight summaries for % body weight, % brain weight, and for absolute values are in Tables 9.1 - 9.4, 10.1 - 10.4 and 11.1 - 11.4, respectively. Individual organ weight data are contained in Appendix 11.

At the conclusion of treatment, significant increases in relative (% body weight) liver weights were seen in high dose males and high and mid dose females (Tables 9.1 and 9.2). Although not statistically significant the increased relative (% body weight) liver weights were considered biologically significant in mid dose males. These trends were also apparent when liver/brain weight ratios (% brain weight) and absolute liver weights were analyzed in males (Tables 10.1, 10.2, 11.1 and 11.2). Splenic weights were significantly increased in high dose animals. Splenic weights in mid dose animals were considered to be increased by a dose-related effect also. These changes (liver and splenic weights) were no longer seen at the end of the recovery period (Tables 10.3, 10.4, 11.3, 11.4, 12.3 and 12.4). No other organ weights were affected by WR238605 treatment. A statistically significant increase in relative and absolute thyroids-parathyroids weights were observed in mid and high dose males but not females at the end of the recovery period (Table 11.3). This result was not considered to be

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biologically significant because these changes were not seen in these treatment groups at the end of the dosing period.

#### 4.9 Pathology

The Pathology Report is contained in Appendix 12. A summary of microscopic lesions is shown in Table 12.

The oral administration of WR238605 in dogs was associated with histologic changes in the lungs, spleen, liver, thymus, and bone marrow. Several test article-related changes were observed in the lungs. Alveolar proteinosis was observed in mid and high dose animals at the end of the treatment period. This lesion was characterized by pale eosinophilic amphorous to fibrillar material in the alveoli, large discrete cells having abundant vacuolated cytoplasm in the alveolar and terminal bronchiolar lumen, and neutrophils present in the affected alveoli. Subacute inflammation consisting of macrophages and a few lymphocytes forming cuffs around venules and small arterioles was also seen at the end of the dosing period in a dose-related manner. This was apparent in mid and high dose animals and in low dose females. These two changes were considered to be direct test article-related changes. Alveolar proteinosis had completely resolved in males and almost resolved in females by the end of the recovery Resolution of subacute inflammation had progressed substantially as demonstrated by a decrease in the mean severity score. The process of resolution was obscured by the apparent spontaneous development of subacute inflammation observed in control and low dose animals by the end of the recovery period. However, the higher mean severity score in high dose animals as compared to controls suggests that the subacute inflammation had not been completely resolved. During the recovery period, chronic inflammation of the lungs developed. Chronic inflammation was seen as a focal or subcapsular change consisting of interstitial fibrosis, mononuclear cell infiltration, and sometimes hyperplasia of the alveolar or bronchiolar epithelium. interpreted as part of the process of alveolar proteinosis, and thus secondary to a direct treatment-related affect.

Treatment-related splenic lesions included extramedullary hematopoiesis and hemosiderin pigment in high dose and to a lesser extent in mid dose males and females. Hemosiderin pigment was also seen in one low dose male. All animals exhibited a recovery for extramedullary hematopoiesis. Absolute recovery from splenic hemosiderosis was masked by the spontaneous development of hemosiderosis in the control animals. Three control animals (two males and one female) which were sacrificed at the end of the recovery period spontaneously developed splenic hemosiderosis. This was not seen in control animals necropsied at the conclusion of treatment. However, the process of resolution of the splenic hemosiderosis was evident as judged by a reduction in the mean severity score. These splenic lesions were considered secondary changes caused by the clinical anemia produced by WR238605 treatment.

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In the liver, hemosiderin deposits, Kupffer cell hypertrophy, and subacute inflammation occurred together in mid and high dose animals sacrificed at the end of the dosing period. Hemosiderin deposits and subacute inflammation of minimal severity also were each seen in a one low dose animals at that time. Hepatocellular necrosis of minimal severity was observed in high dose males. In animals sacrificed after the recovery period, Kupffer cell hypertrophy, subacute inflammation, and hepatocyte necrosis had completely resolved, but hemosiderin deposits persisted in mid dose and high dose animals. These changes were interpreted as consistent with the pathophysiologic response to a mild hemolytic anemia and its resolution following cessation of test article administration.

Another lesion interpreted as a secondary effect of WR238605-induced generalized toxicity or stress was depletion of thymic lymphocytes. This decrease in cortical lymphocytes varied from pale-staining with increased pyknotic lymphocytes to distinct thinning of the cortex. This lesion resolved by the end of the recovery period.

Bone marrow hypercellularity, in which hematopoietic cells replaced fat cells, was seen in all high dose animals and mid dose females. This was also observed in one mid and low dose male. Evaluation of bone marrow smears revealed a significant decrease in M:E ratios in mid and high dose animals. This decrease in M:E ratio was considered to be due to an increase in erythroid cells rather than a decrease in myeloid cells. These findings are consistent with observations of hemolytic anemia as evidenced by hemosiderin deposition in the liver and spleen, and thus was interpreted as a secondary effect of the erythrocyte destruction produced by drug treatment. The M:E ratio had recovered to normal by the end of the recovery period.

No other treatment-related histopathologic lesions were observed. As detailed in the Pathology Report (Appendix 12), a few organs were unavailable for microscopic examination. They were either inadvertently not collected at necropsy, lost in histologic processing or unavailable from sectioned (and re-sectioned) tissue. This included six mammary glands and four non-mammary gland tissues. Mammary gland tissue is often difficult to locate in appropriate male skin sections. None of these omissions was considered to have had an impact on the study as no treatment-related changes were seen in these missing tissues.

#### DISCUSSION

This study evaluated the toxicity of WR238605 in Beagle dogs following thirteen weeks of daily oral (gavage) administration. A thirteen week recovery period was included for all groups. The results are summarized in Table 1. None of the dogs died during the study. Generalized cyanosis manifested by blue tongue, gums and/or sclera was seen in all animals at the higher dose levels, and was supported by significant methemoglobinemia. Although barely perceptible blue tongue, gums and sclera were seen sporadicly in low dose animals, these observations were

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not considered to be a biologically significant signs of cyanosis. Furthermore, elevations of methemoglobin levels were not observed in low dose animals. Body weight gains were decreased in high dose males and in mid and high dose females without a corresponding decrease in food consumption. In the recovery period, resolution of methemoglobinemia and the resulting cyanotic state was seen, and body weight gains were comparable among treatment groups.

Hemolytic anemia was observed at the high dose level and a lesser extent at the mid dose level. In Weeks 2 and/or 4, RBC count, hemoglobin level, and hematocrit were significantly lowered. MCHC was also decreased at the highest dose level. Compensatory physiologic responses included reticulocytosis and increased nucleated RBCs. Erythrocytes were anisocytotic in high dose females and to a lesser extent in mid and high dose males. Splenic extramedullary hematopoiesis and hemosiderosis in liver and spleen suggested that these "changes" were apparently secondary to hemolytic anemia. Although the anemic state was, in general, reversible after cessation of treatment, the secondary lesions such as hemosiderosis in liver and possibly the spleen were not completely resolved. Additional secondary responses to hemolytic anemia primarily seen in mid and high dose animals, included bone marrow hypercellularity supported by a decreased M:E ratio. These changes had resolved by the end of the recovery period. The aforementioned hematologic alterations including the methemoglobinemia may have been associated with the apparent congested retinal vessels in one high female seen at the conclusion of the treatment period. This had resolved at the end of the recovery period.

A significant dose-related increase in subacute inflammation in the lungs was seen in mid and high dose treatment groups at the end of the treatment period. Although subacute inflammation was observed in low dose animals, it was a low severity comparable to the spontaneous subacute inflammation observed in control animals at this time. Therefore, the biologic significance of the subacute inflammation observed in low dose animals is questionable. By the end of the recovery period, the lesions in the high dose animals were still in the process of resolution by the end of the recovery period as judged by a decrease in incidence and severity. Subacute inflammation in the lungs was judged to be a dose-related direct effect of WR238605 treatment.

Alveolar proteinosis occurred as another dose-related direct effect of WR238605-treatment in the lungs. The occurrence of alveolar proteinosis was limited to mid and high dose animals at the end of the treatment period. By the end of the recovery, alveolar proteinosis was still in the process of resolution as judged by a decrease in the incidence and severity. However, as part of the process of resolution of alveolar proteinosis, chronic inflammation of the alveolar and bronchiolar epithelium developed during the recovery period. The development of chronic inflammation was therefore judged to be a secondary treatment-related effect.

In the liver, hemosiderin deposits, Kupffer cell hypertrophy, and subacute inflammation primarily occurred in mid and high dose animals sacrificed at the end of the dosing period; although some of these changes were also seen in a few low dose animals at that time. In animals sacrificed after the recovery period, Kupffer cell hypertrophy had completely resolved, but hemosiderin deposits and subacute inflammation persisted in mid dose and high dose

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animals. These changes were interpreted as consistent with the pathophysiologic response to a mild hemolytic anemia and its resolution following cessation of test article administration. Hepatocellular necrosis of minimal severity was observed in two high dose males. This could be correlated with the mild changes in AST, ALT, albumin, and A/G ratios in high dose males. Some of these clinical chemistry changes in the absence of supporting histopathology were also noted in mid dose animals. Significantly elevated serum haptoglobin levels, indicative of an acute phase reaction, may have been associated with the subacute inflammatory liver lesions noted in mid and high dose animals. All of these changes were reversible following cessation of treatment.

Indirect effects of WR238605 treatment possibly related to the stress included the depletion of thymic lymphocytes and the production of a neutrophilic and monocytic leukocytosis. These changes were limited to mid and high dose animals and were reversible upon cessation of treatment. A transient thrombocytopenia was also seen in high and mid dose animals. This decrease in platelet number was generally resolved by the end of the dosing period, and was not observed in the recovery period.

In an earlier four week oral (gavage) toxicity study of WR238605 (UIC/TRL Study No. 047), toxic effects similar to that seen in the present study were observed at dose levels of 16 and 6 mg base/kg/day. At these two higher doses, body weight loss in the absence of a reduction of food intake and cyanosis accompanied by methemoglobinemia were noted. Compensatory responses to the hypochromic anemia induced by drug treatment included reticulocytosis, increased levels of nucleated RBC's (high dose only), splenomegaly accompanied by extramedullary hematopoiesis and bone marrow hyperplasia. At these dose levels, mild hepatotoxicity was observed (alterations in A/G ratios and histologically, subacute hepatocellular inflammation). Subacute inflammation of the lungs accompanied by an alveolar macrophage response was also observed. While this lesion was observed in almost all of the animals, including control animals, the mean group severity at 6 and 16 mg base/kg/day was approximately two-fold higher than that seen in control and low dose (0.5 mg base/kg/day) animals. This inflammatory response involving the accumulation of alveolar macrophages might be a preface to the development of alveolar proteinosis seen in the present study. Additional effects seen in the one month study included thrombocytopenia (also seen in the present study), hypoglycemia and possible thymic lymphocyte depletion. Minimal toxicity was seen at the lowest dose level (0.5 mg base/kg/day) including signs of cyanosis with a statistically insignificant increase in methemoglobin production, and mild histologic changes in the bone marrow, liver, and possibly the spleen. On this basis, a no-observed effect level could not be determined.

As previously asserted, toxic effects similar to that observed in the one month study were apparent in the current thirteen week oral toxicity study of WR238605 which included a thirteen week recovery period. One significant direct treatment-related effect observed in this study and not in the four week oral toxicity study was the development of alveolar proteinosis. Also, chronic lung inflammation seen in recovery animals was considered to be the direct result of the process of resolution of this lesion. Alveolar proteinosis is a rare condition of unknown etiology. This lesion is characterized by the accumulation of granular, eosinophilic, periodic

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acid-Schiff-positive protein-lipid material in the alveoli resembling pulmonary edema (Kairiman et al., 1984). Common characteristics of alveolar proteinosis include changes in vascular permeability, abnormal increases in surfactant production and alterations in macrophage function (Boorman et al., 1990; Claypool et al., 1984). Although a variety of agents are capable of producing lung injury (Cooper, Jr. et al., 1986a; Cooper, Jr. et al., 1986b), the development of alveolar proteinosis has been primarily associated with exposure through inhalation (i.e. quartz and silica dust exposure and oxidant gases) (Rubin et al., 1980, Corrin et al., 1970; Dawkins et al., 1991). Two pharmacologic agents which have been found to induce alveolar proteinosis are iprinodole (administered in diet), an anti-depressant drug, and chlorphentermine (administered intraperitoneally), an anoretic drug (Smith, 1980). Both compounds have been shown to produce alveolar proteinosis when administered chronically at large doses. In the present study, it is theorized that oxidative damage by the test article produced increased vascular permeability which allowed the leakage of amphorous to fibrillar eosinophilic material in the alveoli. The damage and resulting leakage of proteinaceous material resulted in the localization of neutrophils and alveolar macrophages to the site of injury. Although surfactant levels were not determined, changes observed in the present study are consistent with diagnosis of alveolar proteinosis.

As previously mentioned, the morphologic features of the chronic pulmonary inflammation observed in mid and high dose animals at the end of the recovery period suggested that it was produced as a result of the resolution of pulmonary alveolar proteinosis. As such, the chronic pulmonary inflammation was interpreted to be a secondary test article-related change. The chronic inflammation was of minimal to mild severity, and therefore would not be expected to have long-term effects on pulmonary function. However, longer term studies would be needed to confirm this.

In summary, the primary toxic effects of WR238605 included methemoglobinemia with clinical signs of cyanosis (blue gums, tongue, and sclera), decreased weight gain, apparent congested retinal vessels in one high dose female, hemolytic anemia, neutrophilic and monocytic leukocytosis, transient thrombocytopenia, pulmonary lesions (alveolar proteinosis and acute inflammation), bone marrow hypercellularity with an associated decreased M:E ratio, depletion of thymic lymphocytes and mild hepatotoxicity. These effects were generally seen at the high and mid dose levels, although hemosiderosis secondary to hemolytic anemia, and lung and bone marrow changes of minimal severity were also seen to a limited extent in low dose animals. These changes were essentially reversible, except for lung lesions and lesions secondary to the observed hemolytic anemia, e.g. hemosiderosis. Based upon the these findings, the no observed effect level in this study was equivocal, but was considered to be near the low dose level of 0.1 mg base/kg/day.

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#### 6. PERSONNEL

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#### 7. ARCHIVES

The raw data, specimens, test article reserves, and final report are archived at the Toxicology Research Laboratory (TRL), University of Illinois at Chicago (UIC), Department of Pharmacology, 1940 W. Taylor St., Chicago, IL 60612-7353.

#### 8. REFERENCES

Boorman, G.A. and Eustis, S.L. (1990). Lung. *Pathology of the Fischer Rat, Reference Atlas*, eds. Boorman, G.A., Eustis, S.L., Elwell, M.R., Montgomery, Jr., C.A. and MacKenzie, W.F., (San Diego: Academic Press, Inc.), 345-346.

Claypool, W.D., Rogers, R.M. and Matuschak, G.M. (1984). Update on the clinical diagnosis, management, and pathogenesis of pulmonary alveolar proteinosis (phospholipidosis). *Chest* 85:550-558.

Cooper, Jr., J.A.D., White, D.A. and Matthay, R.A. (1986a). Drug induced pulmonary disease, Part 1: Cytotoxic drugs. Am Rev Respir Disease 133:321-340.

Cooper, Jr., J.A.D., White, D.A. and Matthay, R.A. (1986b). Drug induced pulmonary disease, Part 2: Non-cytotoxic drugs. Am Rev Respir Disease 133:488-505.

Corrin, B. and King, E. (1970). Pathogenesis of the experimental pulmonary alveolar proteinosis. *Thorax* 25:230-236.

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Dawkins, S.A., Gerhard, H. and Nevin, M. (1991). Pulmonary alveolar proteinosis: a possible sequel of NO<sub>2</sub> exposure. *J Occup Med* 33:638-641.

Kairiman, K., Kylstra, J.A. and Spock A. (1984). Pulmonary alveolar proteinosis: prospective clinical experience in 23 patients for 15 years. *Lung* 162:223-231.

Rubin, E., Weisbrod, G.L. and Sanders, D.E. (1980). Pulmonary alveolar proteinosis. Radiology 135:35-41.

Smith, F.B. (1980). Alveolar proteinosis: atypical pulmonary response to injury. NY State J Med 80:1372-1380.

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## Table 1 THIRTEEN WEEK ORAL TOXICITY STUDY OF WR238605 WITH A THIRTEEN WEEK RECOVERY PERIOD IN DOGS

#### Summary of Toxic Responses

Dose (mg base/kg/day)	8	0.1	2.0	6.0
Dogs/Sex	4 + 4°	4 + 4*	4 + 4*	4 + 4*
Deaths	8	0	0	0
Body Weight Gain	-	NE	↓ (M) ↓ (F)	‡ (M)
Food Consumption		NE	NE	NE
Clinical Signs	-	Blue tongue (sporadic) Blue sclera (sporadic)	Blue tongue Blue sclera Blue gums	Blue tongue Blue sclera Blue gums
Hematology <sup>b</sup>	-	NE	METHGB PT WBC (M) HGB MNEUT (M) MCHC (M) INEUT (F) RETIC MON	METHGB NRBC RBC PLT HGB PT HCT WBC MCHC MNEUT MCV (F) (M?) INEUT (I
Clinical Chemistry <sup>e</sup>	-	NE	↑ AST ↑ HPT (M) (F ?)	ALT (M?)  AST  ALB  A/G  TRY (M)  HPT  BILI (M)
Urinalysis	-	NE	BILI (M ?)	BILI (M ?)
Electrocardiography		NE	NE	-
Ophthalmology	-	NE	NE	Congested retinal vessels (1F)
Organ Weights	-	NE	↑ Spleen (?) Liver	† Spleen † Liver
Histopathology	Lungs - subacute inflammation	Lungs - subacute inflammation Spleen - hemosiderin pigment (M) Liver - hemosiderin pigment (F) subacute inflammation (M) Bone marrow - hypercellularity (M)	Lungs - alveolar proteinosis subacute inflammation Spleen - extramedullary hematopoiesis hemosiderin pigment Liver - hemosiderin pigment Kupffer cell hypertrophy subacute inflammation Thymus - lymphocyte depletion (F) Bone marrow - hypercellularity  \$\delta M/E Ratio\$	Lungs - alveolar proteinosis subacute inflammation Spleen - extramedullary hematopoiesis hemosiderin pigment Liver - hemosiderin pigment Kupffer cell hypertrophy subacute inflammation hepatocyte necrosis (M) Thymus - lymphocyte depletion Bone marrow - hypercellularity  M/E Ratio
Recovery Period	alveolar proteinosis, pulmo of the resolution of alveol	onary subacute inflammation, and ar proteinosis, chronic inflammati	week recovery period. The exceptions splenic and hepatic lesions secondary on developed in the lungs. However, a tation were seen in control animals.	to the hemolytic anemia. Also as pa
CONCLUSIONS	high dose animals, but wa anemia, although hepatocy thrombooytopenia and the	s reversible. Microscopic lesions te necrosis in high dose males su	d liver. Significant methemoglobin pr in the spleen, liver and bone marrow proported by clinical chemisty changes were observed at the Ligher done leve een in the lowest dose tested.	were secondary to mild hemolytic was also noted. Transient

<sup>\*</sup>Recovery animals.

<sup>\*</sup>METROE = metaemogrocia, REC = cryunocytes, PCS = tiemogrocia, PCC = ten accret, MCH = meta-corpuscular bemogrocia, MCV = meta-corpuscular bemogrocia, MCV = metae-corpuscular hemogrocia, MCV = metae-corpuscular

<sup>&#</sup>x27;ALT = alanine aminotransferase, AST = aspartate aminotransferase, ALB = albumin, A/G = albumin/globulin ratio, HPT = haptoglobin, TRY = triglycerides.

<sup>? =</sup> Possible or marginal effect

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Table 2

THIRTEEN WEEK ORAL TOXICITY STUDY OF WR238605
WITH A THIRTEEN WEEK RECOVERY PERIOD IN DOGS

Dosage Formulation Analyses<sup>a</sup>

Target Concentration (mg base/ml)	Weeks 1/2	% Target	Weeks 7/8	% Target	Week 13	% Target
0	0.00		0.00			
0.1	0.097 ± 0.002	97.0	0.097 <u>+</u> 0.001	97.0	0.105 ± 0.007	105.0
0.2	1.978 ± 0.031	98.9	1.930 ± 0.008	96.5	1.969 ± 0.048	98.4
6.0	5.479 ± 0.149	91.3	6.306 ± 0.017	105.1	6.457 ± 0.023	107.6

<sup>\*</sup>Mean + standard deviation for triplicate runs.

Table 3

STUDY:	097		SEX:	MALE			
		DOSE:(mg/kg) GROUP:	Ö 1M	0.1 2M	2.0 3M	6.0 4M	mg base/kg/day
		TREAT	MENT PERI	OD		•	
	Schedule Blue Gum Blue Ton Dehydrat Blue Scl	ngue	0000	4 0 1 0 2	4 8 8 0 8	4 8 8 2 8	
	Total Numb	per of Animals	8	8	8	8	•
		RECOV	ERY PERIC	D			Α
	Scheduler Blue Gum Blue Tons Blue Sclo	d Sacrifice s gue era	4 0 0	4 0 1 1	4 2 4	4 3 4 4	
	Total Numbe	er of Animals	4	4	4	4	
. 3							
STUDY:	097	- 20 (20 ) - 10 (20 )	SEX: F				b/
		DOSE:(mg/kg) GROUP:	0 1F	0.1 2F	2.0 3F	6.0 4F	mg base/kg/da
		TREATM	MENT PERIO	DD D			
	Schedule Blue Gum Blue Ton Dehydrat Blue Scl	gue	4 0 0 0 0	4 1 4 0 5	4 8 8 0 7	4 8 8 1 8	
	Total Numb	er of Animals	8	8	8	8	
		RECOV	ERY PERIO	D			
		TALCO V					
		d Sacrifice s gue	4 0 0	4 0 2 2	4 4 4 4	4 4 4	

*****							
*********			JMMARY O	F BODY W			
	STUDY:				SEX:		
	PERIOD	DOSE: (mg/kg GROUP:	g) 0 1M	0.1 2M	2.0 3H	6.0 4H	mg base/kg/day
			TREAT	MENT PERI	OD		
•							
	DAY -8	MEAN S.D. N	10.5 0.51 8	10.4 0.44 8	10.6 0.58 8	10.4 0.35 8	
	DAY 0	MEAN S.D. N	10.3 0.54 8	10.2 0.47 8	10.4 0.35 8	10.2 0.32 8	
	DAY 7	MEAN S.D. N	10.6 0.52 8	10.4 0.47 8	10.4 0.41 8	10.4 0.33 8	
	DAY 13	MEAN S.D. N	10.5 0.56 8	10.3 0.45 8	10.4 0.37 8	10.2 0.41 8	
	DAY 21	MEAN S.D. N	10.7 0.59 8	10.6 0.44 8	10.5 0.41 8	10.2 0.41 8	
	DAY 28	MEAN S.D. N	10.7 0.49 8	10.6 0.50 8	10.4 0.38 8	10.1* 0.38 8	
	DAY 35	MEAN S.D. N	11.1 0.46 8	10.8 0.44 8	10.6 0.36 8	10.2* 0.40 8	
	DAY 42	MEAN S.D. N	10.9 0.52 8	10.6 0.45 8	10.5 0.51 8	10.0* 0.61 8	
	DAY 49	MEAN S.D. N	11.1 0.54 8	10.9 0.53 8	10.7 0.49 8	10.1* 0.48 8	
	DAY 56	MEAN S.D. N	11.0 0.53 8	10.7 0.47 8	10.5 0.55 8	9.8* 0.67 8	
	DAY 63	MEAN S.D. N	11.1 0.56 3	10.8 0.47 8	10.6 0.55 8	9.9° 0.77 3	
	DAY 70	MEAN S.D. N	11.1 0.49 8	10.9 0.52 8	10.7 0.58 8	9.9* 0.71 8	
	DAY 77	MEAN S.D. N	11.1 0.43 8	10.8 0.47 8	10.7 0.65 8	9.8* 0.38 8	
	DAY 84	MEÁN S.D. N	11.1 0.49 8	:0.9 0.48 3	10.7 0.74 8	9.8* 0.39 8	

***			***************************************				
***************************************		SU	MMARY OF	BODY W	EIGHTS (Ki	(ograms)	
	STUDY:	097			SEX: FE		
	PERIOD	DOSE: (mg/kg GROUP:	) 0 1F	0.1 2F	2.0 3F	6.0 m	ng base/kg/day
			TREATM	ENT PERIC	)D		
	DAY -8	MEAN S.D. N	8.7 0.91 8	8.8 0.69 8	9.0 0.91 8	9.0 0.70 8	
	DAY 0	MEAN S.D. N	8.6 0.84 8	8.7 0.63 8	8.8 0.80 8	8.9 0.78 8	
	DAY 7	MEAN S.D. N	8.8 0.86 8	8.9 0.71 8	8.9 0.87 8	8.9 0.82 8	
	DAY 13	MEAN S.D. N	8.7 0.86 8	8.8 0.69 8	8.7 0.87 8	8.8 0.89 8	
	DAY 21	MEAN S.D. N	8.9 0.84 8	9.1 0.72 8	8.7 0.93 8	8.6 0.92 8	
	DAY 28	MEAN S.D. N	9.0 0.82 8	9.0 0.71 8	8.6 0.94 8	8.6 0.91 8	
	DAY 35	MEAN S.O. N	9.2 0.86 8	9.3 0.83 8	8.7 0.98 8	8.7 0.93 8	
	DAY 42	MEAN S.D. N	9.2 0.86 8	9.1 0.80 8	8.6 0.93 8	8.7 0.86 8	
	DAY 49	MEAN S.D. N	9.4 0.96 8	9.4 0.92 8	8.7 0.92 8	8.8 0.82 8	
	DAY 56	MEAN S.D. N	9.3 0.90 8	9.2 1.05 8	8.5 0.97 8	8.6 0.83 8	
	DAY 63	MEAN S.D. N	9.4 0.96 8	9.2 1.04 8	8.7 1.11 8	8.7 0.82 8	
	DAY 70	MEAN S.O. N	9.6 0.93 8	9.3 1.01 8	8.6 1.12 8	8.7 0.74 8	
	DAY 77	MEAN S.D. N	9.6 1.00 8	9.2 1.05 8	8.7 1.17 8	8.7 0.79 8	
	DAY 84	MEAN S.D. N	9.6 1.01 8	9.3 1.02 8	8.7 1.23 8	8.7 0.71 8	

Table 4.3

# L TOXICITY STUDY A THIRTEEN WEEK

# THIRTEEN WEEK ORAL TOXICITY STUDY OF WR 238605 WITH A THIRTEEN WEEK RECOVERY PERIOD IN DOGS

				OF BODY W				
	STUDY:	097			SEX:			
	PERIOD	DOSE: (mg/kg) GROUP:	0 1H	0.1 2M	2.0 3M	6.0 4M	mg	base/kg/day
			RECC	VERY PERI	OD			
	DAY 91	MEAN S.D. N	11.1 0.57 4	11.0 0.28 4	10.7 0.62 4	10.0 0.57 4		
	DAY 98	MEAN S.D. N	11.1 0.67 4	10.7 0.39 4	10.6 0.78 4	9.9 0.66 4		
	DAY 105	MEAN S.D. N	11.0 0.67 4	10.7 0.44 4	10.6 0.80 4	9.9 0.59 4		
	DAY 112	MEAN S.D. N	11.2 0.68 4	10.8 0.52 4	10.8 0.81 4	10.0 0.64 4		
	DAY 119	MEAN S.D. N	11.4 0.65 4	11.1 0.68 4	11.2 0.80 4	10.3 0.54 4		
	DAY 126	MEAN S.D. N	11.3 0.64 4	10.9 0.63 4	11.1 0.74 4	10.2 0.56 4		
	DAY 133	MEAN S.D. N	11.6 0.44 4	11.5 0.90 4	11.5 0.62 4	10.7 0.62 4		
•	DAY 140	MEAN S.D. N	11.6 0.69 4	11.1 0.97 4	11.3 0.88 4	10.3 0.68 4		
	DAY 147	MEAN S.D. N	11.5 0.63 4	11.0 1.05 4	11.1 0.80 4	10.5 0.70 4		
	DAY 154	MEAN S.D. N	11.7 0.68 4	11.1	11.2 0.93 4	10.4		
	DAY 161	MEAN S.D. N	11.9 0.70 4	11.3 1.10 4	11.3 0.94 4	10.6 0.64 4		
	DAY 168	MEAN S.D. N	12.1 0.47 4	11.8 0.78 4	11.9 0.67 4	11.3 0.80 4		
	DAY 175	MEAN S.D.	12.0 0.92	11.7	11.7	11.1		

Table 4.4



		SUN	MARY OF	BODY W	VEIGHTS	(Kilograms)	
	STUDY:	097			SEX:	FEMALE	
***************************************	PERIOD	DOSE: (mg/kg) GROUP:	0 1F	0.1 2F	2.0 3F	6.0 4F	mg base/kg/day
			RECOVE	ERY PERI	OD		
	DAY 91	MEAN S.D. N	9.9 1.14 4	9.6 0.68 4	8.4 0.75 4	8.6 0.35 4	
	DAY 98	MEAN S.D. N	9.9 1.13 4	9.4 0.64 4	8.5 0.65 4	8.6 0.32 4	
	DAY 105		9.8 1.17 4	9.5 0.66 4	8.8 0.86 4	8.7 0.42 4	
	DAY 112	MEAN S.D. N	9.9 1.31 4	9.4 0.53 4	9.0 0.92 4	8.9 0.48 4	
	DAY 119	S.D.	10.1 1.47 4	9.6 0.47 4	9.0 0.88 4	9.1 0.42 4	
	DAY 126	MEAN S.D. N	9.9 1.40 4	9.5 0.50 4	8.9 0.76 4	9.1 0.53 4	
	DAY 133		1.24	9.9 0.78 4	9.1 0.49 4	9.3 0.67 4	
	DAY 140	MEAN S.D. N		9.8 0.54 4	9.1 0.74 4	9.4 0.65 4	
	DAY 147	S.D.	10.1 1.34 4	9.8 0.56 4	9.2 0.82 4	9.3 0.61 4	
	DAY 154	MEAN S.D. N	10.2 1.40 4	9.6 0.69 4	9.2 0.83 4	9.3 0.67 4	
	DAY 161	MEAN S.D. N	10.2 1.44 4	10.0 0.37 4	9.1 0.86 4	9.3 0.89 4	
	DAY 168	MEAN S.D. N	10.4	10.5 0.37 4	9.4 0.73 4	9.8 1.18 4	
	DAY 175	MEAN S.D. N	10.5 1.32 4	10.8 0.53 4	9.5 0.85 4	9.9 1.17 4	

Table 5.1

SUMMARY OF WEIGHT GAINS (Kilograms)												
*********			MARY O	WEIGHT	GAINS	(Kilograms)						
	STUDY: (	97			SEX: M	IALE	•					
	PERIOD a	DOSE: (mg/kg) GROUP:	0 1M	0.1 2M	2.0 3M	6.0 4M	mg base/kg/day					
TREATMENT PERIOD												
	DAY 7 b	MEAN S.D. N	0.3 0.12 8	0.2 0.14 8	0.1* 0.11 8	0.1* 0.13 8						
	DAY 13	MEAN S.D. N	-0.2 0.12 8	-0.1 0.18 8	-0.1 0.16 8	-0.2 0.16 8						
	DAY 21	MEAN S.D. N	0.3 0.16 8	0.3 0.24 8	0.2 0.14 8	0.0* 0.15 8						
	DAY 28	MEAN S.D. N	0.0 0.15 8	0.0 0.20 8	-0.2 0.20 8	-0.1 0.16 8						
	DAY 35	MEAN S.D. N	0.3 0.07 8	0.2 0.15 8	0.2 0.18 8	0.1* 0.17 8						
	DAY 42	MEAN S.D. N	-0.1 0.24 8	-0.1 0.21 8	-0.1 0.25 8	-0.2 0.31 8						
	OAY 49	MEAN S.O. N	0.2 0.14 8	0.3 0.24 8	0.2 0.28 8	0.1 0.24 8						
	DAY 56	MEAN S.D. N	-0.1 0.28 8	-0.2 0.20 8	-0.3 0.29 8	-0.3 0.30 8						
	0AY 63	MEAN S.D. N	0.1 0.11 8	0.1 0.14 8	0.1 0.07 8	0.1 0.14 8						
	DAY 70	MEAN S.D. N	0.0 0.20 8	0.1 0.15 8	0.1 0.15 8	-0.1 0.26 8						
	DAY 77	MEAN S.D. N	0.0 0.07 8	0.0 0.16 8	0.0 0.19 8	-0.1 0.22 8						
	DAY 84	MEAN S.D. N	0.0 0.19 8	0.1	0.0 0.22 8	0.0 0.07 8						
	TOTAL GAIN	MEAN S.D. N	0.8 0.32 8	0.7 0.54 8	0.3	-0.4* 0.70						
* Pless	than .05	Analysis	of Varianc	e using DUNNE								

<sup>&</sup>lt;sup>a</sup>Successive periods bBaseline is Day O

Table 5.2

***************		SUM	MARY (	OF WEIGHT	GAIN	S (Kilograms)					
****************	STUDY:					FEMALE					
••••	PERIOD <sup>a</sup>	OOSE: (mg/kg) GROUP:	0 1F	D.1 2F	2.0 3F	6.D 4F	mg base/kg/day				
TREATMENT PERIOD											
	DAY 7 b	MEAN S.O. N	0.2 0.19 8	0.2 0.11 8	0.1 0.17 8	D.0 0.D7 8					
	DAY 13	MEAN S.D. N	-0.1 0.18 8	0.0 0.10 8	-0.2 0.18 8	-0.2 0.12 8					
	DAY 21	MEAN S.D. N	0.2 0.11 8	0.3 0.13 8	0.0 0.19 8	-0.1* 0.23 8					
	DAY 28	MEAN S.O. N	0.1 0.13 8	-0.1 0.13 8	-0.1* D.D5 8	-0.1 0.2D 8					
	DAY 35	MEAN S.O. N	0.3 0.21 8	D.2 D.21 8	0.1 0.20 8	D.11 D.11 8					
	DAY 42	MEAN S.O. N	0.D 0.15 8	-0.2 0.21 8	-D.1 0.14 8	D.1 D.18 8					
	OAY 49	MEAN S.O. N	0.2 0.20 8	D.3 D.22 8	0.2 0.11 8	0.1 0.10 8					
	OAY 56	MEAN S.O. N	-0.1 0.18 8	-0.2 0.25 8	-0.2 D.23 8	-0.2 0.15 8					
	DAY 63	MEAN S.O. N	0.1 D.11 8	0.1 0.16 8	0.2 0.21 8	0.1 0.24 8					
	OAY 70	MEAN S.D. N	0.2 0.24 8	0.1 0.27 8	-0.1 D.18 8	-0.1 0.18 8					
	OAY 77	MEAN S.D. N	0.1 0.16 8	-0.1 D.19 8	0.D 0.19 8	0.0 0.11 8					
	0AY 84	MEAN S.D. N	0.0 0.14 8	0.0 0.18 8	0.0 0.12 8	D.D D.33 8					
	TOTAL GAIN	MEAN S.D. N	1.1 0.42 8	0.6 0.37 8	-D.2* D.98 8	-0.2* D.57 8					
		A1 *									

P less than .05

<sup>&</sup>lt;sup>a</sup>Successive periods baseline is Day O

Table 5.3

			HIAK I	OF WEIGHT			
	STUDY:				SEX: N		12-12
	PERIOD a	DOSE: (mg/kg) GROUP:	0 1M	0.1 2M	2.0 3M	6.0 4M	mg base/kg/day
***************	***********		• • • • • • • • •	• • • • • • • • • • • • • • • • • • • •			
			REC	OVERY PER	IOD		
	OAY 91	MEAN S.O. N	0.1 0.17 4	0.4	0.0 0.29 4	0.2 0.33 4	
	DAY 98	MEAN S.O. N	0.0 0.29 4	-0.3 0.12 4	-0.1 0.22 4	-0.2 0.13 4	
	DAY 105	MEAN S.O. N	-0.1 0.14 4	0.0	0.0 0.22 4	0.0 0.13 4	
	0AY 112	MEAN S.O. N	0.2 0.05 4	0.1 0.13 4	0.2 0.05 4	0.1 0.15 4	
	DAY 119	MEAN S.D. N	0.2 0.06 4	0.3 0.17 4	0.3 0.05 4	0.3 0.15 4	
	0AY 126	MEAN S.O. N	-0.1 0.10 4	-0.2 0.08 4	-0.1 0.14 4	0.0	
^	DAY 133	MEAN S.D. N	0.3 0.22 4	0.6 0.22 4	0.4	0.5 0.14 4	
31 1	DAY 140	MEAN S.D. N	0.0 0.29 4	-0.4 0.08 4	-0.2 0.45 4	-0.4 0.32 4	
	OAY 147	MEAN S.D. N	-0.1 0.17 4	-0.1 0.10 4	-0.2 0.13 4	0.2	
	OAY 154	MEAN S.D. N	0.10	0.1 0.24 4	0.1 0.22 4	-0.1 0.25 4	
	0AY 161	MEAN S.O. N	0.2 0.18 4	0.2 0.14 4	0.1	0.2 0.10 4	
	DAY 168	MEAN S.D. N	0.3 0.25 4	0.5 0.33 4	0.6	0.7	
	DAY 175	MEAN S.D. N	-0.1 0.56 4	-0.1 0.25 4	-0.2 0.10 4	-0.2 0.22 4	
	TOTAL GAIN	MEAN S.D. N	0.9 0.49 4	0.44	1.1 0.26 4	1.3	

Analysis of Variance using OUNNETT'S Procedure

<sup>&</sup>lt;sup>a</sup>Successive periods

•••••		SUI	MMARY OF	WEIGHT	GAINS (Kil	ograms)	
••••	STUDY: 0		**********		SEX: FEM		
	PERIOD <sup>a</sup>	DOSE: (mg/kg) GROUP:	0 1F	0.1 2F	2.0 3F	6.0 m 4F	g base/kg/day
			RECOVE	ERY PERIO	D		
	DAY 91	MEAN S.O. N	0.1 0.05 4	0.0 0.29 4	-0.1 0.24 4	0.0 0.17 4	
	DAY 98	MEAN S.D. N	0.0 0.24 4	0.25	0.1 0.15 4	0.1 0.13 4	
	DAY 105	MEAN S.O. N	·0.1 0.06 4	0.0 0.19 4	0.3* 0.22 4	0.1	
	DAY 112	MEAN S.D. N	0.17	0.28	0.1 0.13 4	0.2	
	DAY 119	MEAN S.D. N	0.2 0.17 4	0.2 0.18 4	0.1 0.06 4	0.2	
	OAY 126	MEAN S.O. N	-0.2 0.08 4	0.06	-0.1 0.19 4	-0.1 0.24 4	
	DAY 133	MEAN S.D. N	0.2 0.34 4	0.4 0.32 4	0.3 0.30 4	0.3 0.23 4	
*	OAY 140	MEAN S.O. N	0.1 0.15 4	-0.1 0.27 4	-0.1 0.26 4	0.1 0.05 4	
	0AY 147	MEAN S.D. N	0.21	0.0 0.12 4	0.1 0.15 4	-0.1 0.10	
1	DAY 154	MEAN S.O. N	0.1 0.22 4	-0.2 0.14 4	-0.1 0.21	0.0 0.15 4	
(	OAY 161	MEAN S.D. N	0.0 0.13 4	0.4 0.41 4	0.0 0.13 4	0.0 0.29 4	
1	DAY 168	MEAN S.D. N	0.2	0.5 0.21 4	0.3 0.49 4	0.5 0.34 4	
İ	DAY 175	MEAN S.O. N	0.1 0.19 4	0.3 0.47 4	0.1 0.12 4	0.2	
,	TOTAL GAIN	MEAN S.D. N	0.8 0.26 4	1.2 1.34 4	1.0 0.82 4	1.3 1.03 4	

Analysis of Variance using DUNNETT'S Procedure

<sup>&</sup>lt;sup>a</sup>Successive periods

Table 6.1



			SI	JMMARY O	F DAILY	MEAN	FOOD CO	NSUMPTION	(Grams)	
		STUD	Y: 09	97			SEX:	MALE		
	PERI	00	DOSE:( GROUP:	(mg/kg)	0 1H	0.1 2H	2.0 3M	6.0 4M	mg base/kg/day	
					TREAT	IMENT	PERIOD		.	
	DAY	-14	INTAKE S.D. N	(g)	328 65.4 8	277 86.9 8	281 91.1 8	292 76.4 8		
	DAY	-8	INTAKE S.D. N	(g)	319 76.2 8	335 88.4 8	293 85.9 8	309 58.8 8		
	DAY	6	INTAKE S.D. N	(g)	360 44.8 7	335 73.8 8				•
	DAY	9	INTAKE S.D. N	(g)	332 92.2 8	369 34.0 8	324 68.4 8	343 61.8 8		
	DAY		INTAKE S.D. N	(g)	396 11.3 8	381 48.7 8	310 92.2 8	315 63.0 8		
	DAY 2	23	INTAKE S.D. N	(9)	400 0.4 8	389 19.7 8	350 46.1 8	361 57.1 8		
	DAY 3	34	INTAKE S.D. N	(g)	400 0.0 8	373 35.4 8	341 79.7 8	363 42.4 8		
`	DAY 4	1	INTAKE S.D. N	(g)	400 0.0 8	400 0.0 8	397 8.8 8	398 4.1 8		
	DAY 4	8	INTAKE S.D. N	(g)	400 0.0 8	383 47.7 8	388 21.6 8	366 64.8 8		
	DAY 5	i1	INTAKE S.D. N	(g)	400 0.0 8	387 36.1 8	387 23.3 8	386 38.1 8		
	DAY 6	2	INTAKE S.D.	(g)	400 0.0 8	385 27.0 8	370 56.2 8	400 0.0 8		
	DAY 6	9	INTAKE S.D. N	(g)	400 0.0 8	400 0.0 8	400 0.0 8	397 9.2 8		
	DAY 7	7	INTAKE S.D. N	(g)	400	395 14.8 8	395 13_4 8	400 0.0 8		
	DAY 8	3	INTAKE S.D. N	(g)	400 0.0 8	391 25.8 8	370 60.1 8	397 8.1 8		
	DAY 8	6	INTAKE S.D. N	(g)	400 0.5 8	400 0.3 3	346 77.4 3	400 0.0 3		

	STU	DY: 097	*********		SEX: F	EMALE	
*****	PERIOD	DOSE:(mg/kg) GROUP:	0 1F	0.1 2F			mg base/kg/day
			TREAT	IMENT PEI	RIOD		
	DAY -14	INTAKE (g) S.D. N	225 80.0 8	232 76.0 8	203 44.5 8	213 41.0 8	
	DAY -8	INTAKE (g) S.D. N	263 88.3 8	237 91.4 8	256 57.8 8	234 70.3 8	
	DAY 6	INTAKE (g) S.D. N	303 71.8 8	266 100.6 8	261 71.4 8	239 69.7 8	
	DAY 9	INTAKE (g) S.D. N	285 94.1 8	297 72.8 8	253 62.6 8	226 61.9 8	
	DAY 20	INTAKE (9) S.D. N	305 85.2 8	312 81.9 8	298 77.1 8	265 123.5 8	
	DAY 23	INTAKE (g) S.D. N	337 67.1 8	325 81.6 8	255 94.6 8	239 88.4 8	
	DAY 34	INTAKE (g) S.D. N	303 96.2 8	354 55.3 8	302 74.8 8	276 58.8 8	
•	DAY 41	INTAKE (g) S.D. N	358 73.4 8	355 59.1 8	339 87.6 8	321 64.1 8	
	DAY 48	INTAKE (g) S.D. N	376 46.0 8	334 78.5 8	335 79.1 8	287 101.1 8	.81
	DAY 51	INTAKE (g) S.D. N	318 96.6 8	344 78.5 8	345 52.6 8	256 83.0 8	
	DAY 62	INTAKE (g) S.D. N	329 89.8 8	351 52.7 8	375 36.9 8	272 105.6 8	
	DAY 69	INTAKE (g) S.D. N	380 40.8 8	365 59.5 8	367 47.7 8	293 82.3 8	
	DAY 77	INTAKE (g) S.D. N	381 36.9 8	333 114.9 8	366 73.7 8	322 66.3 8	
	DAY 83	INTAKE (g) S.D. N	392 23.3 8	355 84.1 8	359 88.8 8	279 109.7 8	
	DAY 86	INTAKE (g) S.D.	376 44.9 8	320 104.5 8	324 104.2 8	238 94.3 8	

******************					OF DAILY	MEAN	FOOD COI	NSUMPTION	(Gra	ams)	
		STUD	7: 09	7			SEX:				
	PER	100		mg/kg)	0 1M	0.1 2M	2.0 3M	6.0 · 4M	mg	base/kg/day	
					RECO	VERY F	PERIOD				
	DAY	97	INTAKE S.D. N	(g)	375 50.0 4	400 0.0 4	394 12.5 4	400 0.0 4			
	DAY	104	INTAKE S.D. N	(g)	400 0.0 4	400 0.0 4	400 0.0 4	400 0.0 4			
	DAY	111	INTAKE S.D. N	(g)	386 28.0 4	400 0.0 4	400 0.0 4	400 0.0 4			٠
	DAY	118	INTAKE S.D. N	(g)	395 9.5 4	400 0.0 4	400 0.0 4	400 0.0 4			
	DAY	121	INTAKE S.D. N		392 15.5 4	400 0.0 4	373 55.0 4	400 0.0 4			
	DAY	132	INTAKE S.D. N	(g)	400 0.0 4	400 0.0 4	400 0.0 4	400 0.0 4			
	DAY	139	INTAKE S.D. N	(g)	373 54.5 4	400 0.0 4	382 37.0 4	400 0.0 4			
`	DAY	146	INTAKE S.D. N		400 0.0 4	400 0.0 4	400 0.0 4	400 0.0 4			
	DAY	153	INTAKE S.D. N	(g)	367 66.5 4	400 0.0 4	400 0.0 4	400 0.0 4			
	DAY	160	INTAKE S.D. N	(g)	321 110.3 4	400 0.0 4	400 0.0 4	400 0.0 4			
	DAY		INTAKE S.D. N		400 0.0 4	400 0.0 4	400 0.0 4	400 0.0 4			
	DAY	174	INTAKE S.D. N		318 123.5 4	400 0.0 4	368 64.5 4	400 0.0 4			
	DAY	177	INTAKE S.D.	(g)	348 68.7	337 82.5	400 0.0	400			

# DRAFT

		SUMMARY	OF DAILY	MEAN I	FOOD CON	SUMPTION	(Grams)
*************	STU	DY: 097				FEMALE	
******	PERIOD	DOSE:(mg/kg) GROUP:	0 1F	0.1 2F	2.0 3F	6.0 4F	mg base/kg/day
			RECO	VERY PE	RIOD		
	DAY 97	INTAKE (g) S.D. N	351 57.4 4	346 108.5 4	347 72.7 4	337 88.1 4	
	DAY 104	INTAKE (g) S.D. N	334 76.5 4	300 121.2 4	400 0.0 4	374 51.5 4	
	DAY 111	INTAKE (g) S.D. N	332 89.0 4	321 122.0 4	360 31.9 4	330 83.0 4	
	DAY 118	INTAKE (9) S.D.	339 47.5 4	339 89.2 4	312 69.4 4	310 75.9 4	
	DAY 121	INTAKE (g) S.D. N	357 54.3 4	362 75.5 4	327 93.5 4	338 81.0 4	
	DAY 132	INTAKE (9) S.D. N	334 78.9 4	366 68.0 4	335 47.1 4	353 93.5 4	
	DAY 139	INTAKE (g) S.D. N	351 50.0 4	380 41.0 4	298 78.4 4	325 88.8 4	
4	DAY 146	INTAKE (g) S.D. N	338 94.1 4	377 46.5 4	304 98.7 4	392 16.0 4	
	DAY 153	INTAKE (g) S.D. N	362 60.6 4	341 82.0 4	287 87.5 4	336 84.8 4	
	DAY 160	INTAKE (g) S.D. N	352 38.9 4	381 23.3 4	285 93.8 4	346 64.1 4	
	DAY 167	INTAKE (g) S.D. N	316 98.9 4	372 57.0 4	323 86.5 4	378 27.1 4	
	DAY 174	INTAKE (g) S.D. N	311 114.6 4	341 78.6 4	269 125.8 4	341 118.5 4	
	DAY 177	INTAKE (g) S.D.	330 78.0	346 41.1	271 89.1	379 42.5	

Table 7.1

#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Alanine Aminotransferase

STUDY ID: 097 STUDY NO: 097 SEX: MALE

STUDY NO: 097						UNITS: U/L
ABBR: ALT	ANALYSIS OF	VARIANCE FOL	LOWED BY DU	NNETT'S PRO	CEDURE	0,11.00
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: Wee	k -3		*****		
		36	38	38	45	
	SD	12.5	6.0	8.3	11.8	
	N	8	8	8	8	
	Period: Wee	k -1				
	MEAN	30	30	33	38	
	SD	9.1	6.3	6.1	9.1	
	N	8	8	8	8	
	Period: Wee	k 2				
	MEAN	28	36	34	44*	
	SD	7.8	5.7	6.1	7.3	
	N	8	8	8	8	
	Period: Wee					
	MEAN	31	39	30	35	
	SD	10.1	9.8	5.2	7.9	
	N	8	8	8	8	
	Period: Wee					
	MEAN	33	45	36	43	
	SD	9.4	24.9	6.0	6.3	
	И	8	8	8	8	
	Period: Wee					
	MEAN	35	43	40	40	
	SD	8.6	12.3	11.3	6.3	
	N	8	8	8	8	
	Period: Wee					
	MEAN .	34	41	42	46	
	SD	8.5	8.0	5.8	5.6	
	N	4	4	4	4	
	Period: Wee					
	MEAN	35	40	41	46	
	SD	9.5	9.5	3.4	8.6	

#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Alanine Aminotransferase

STUDY ID: 097 STUDY NO: 097 SEX: FEMALE

UNITS: U/L

ABBR: ALT

ANALYSIS OF VARIANCE FOLLOWED BY DUNNETT'S PROCEDUR

N

ABBR. ALI	ANALYSIS	OF VARI	ANCE FO	LLOWED BY DU	NNETT'S PRO	CEDURE	
	GROUP(s):		0	0.1	2.0	6.0	mg base/kg/day
	Period:	Week -	3				)
	MEAN		36	36	33	35	
	SD		4.8	4.9	6.5	4.6	
	N		8	8	8	8	
	Period:	Week -	1				
	MEAN		29	30	30	29	
	SD		5.7	5.9	4.7	4.1	
	N		8	8	8	8	
	Period:	Week 2					
	MEAN		31	32	30	28	
	SD		2.4	5.6	10.0	3.6	
	N		8	8	8	8	
	Period:	Week 4					
	MEAN		31	34	38	21	
	SD		2.5		24.6	3.4	
	N		8	8	8	8	
	Period:	Week 8					
	MEAN		33	38	59	25	
	SD		4.3	7.8	68.5	4.5	
	N		8	8	8	8	
	Period:						
	MEAN		32	39	38	27	
	SD		6.0	9-4	12.1	6.8	
	N		8	8	8	8	
	Period:						
	MEAN		35	40	29	25	
	SD		7.7	6.2	5.3	2.4	
	N		4	4	4	4	
	Period:						
	MEAN		31		30	27	
	SD		5.4	8.5	12.8	4.6	



### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Aspartate Aminotransferase

STUDY ID: 097 STUDY NO: 097 ABBR: AST SEX: MALE

UNITS: U/L

ABBR: AST	ANALYSIS OF	VARIANCE FOI	LOUED BY DE	NUETTIC DEC	CEDITOE	UNITS: U/L
	ANACISIS OF	TAKIANCE TOE		MNETT 3 PRO		
	GROUP(s):		0.1	2.0	6.0	mg base/kg/day
	Period: We					
		32	31	33	34	
	SD	6.7			5.9	
	N	8	8	8	8	
	Period: We	ek -1				
	MEAN	37	37	41	38	
	SD	8.0	5.5	12.6	6.0	
	N	8	8	8	8	
	Period: We					
	MEAN	39	43	48	47	
	SD	9.4	8.8	9.5	3.9	
	N	8	8	8	8	
	Period: We					
	MEAN	43	39	45	47	
	SD	13.1	7.3	9.5	4.0	
	N	8	8	8	8	
	Period: Wee					
	MEAN	39	44	54*	55*	
	SD	4.2	9.1	5.8	4.3	
	N	8	8	8	8	
•	Period: Wee	ek 13				
	MEAN	43		53		
	SD	9.6	9.6	7.6	6.6	
	N	8	8	8	8	
	Period: Wee					
	MEAN	43	49	43	50	
	SD	6.0	7.2	7.9	10.4	
	N	4	4	4	4	
	Period: Wee					
	MEAN	41	40	39	40	
	SD	2.2		9.5	9.8	
	N	4	4	4	4	

<sup>\*-</sup>Significant Difference from Control P < .05



#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Aspartate Aminotransferase

STUDY ID: 097 STUDY NO: 097 EX: FEMALE

STUDY NO: 097						
ABBR: AST						INITE. III
MDDV: NOI	ANALYSIS OF	VARIANCE FO	LLOWED BY DE	NUETTIC DOC	CEUIDE	UNITS: U/L
			b; b	MACITY S PRO	CEDURE	
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
						ing base/kg/day
	Period: Wee	k -3				
	MEAN	34	33	33	29	
	SD	5.7	4.1	3.3	5.2	
	N	8	8	8	8	
	Period: Wee					
	MEAN	33	38	40	37	
	SD	4.9	8.4	8.8	4.7	
	N	8	8	8	8	
		_				
	Period: Wee					
	MEAN	43	42	45	45	
	SD	7.2		10.1	12.6	
	N	8	8	8	8	
	Period: Wee	k 4				
	MEAN	41	45	57*	42	
	SD	5.5	6.8	17.9	7.9	
	N	8	8	8	8	
	Period: Weel	k 8				
	MEAN	44	43	58	50	
	SD	5.7	43 5.1	17.4	13.1	
	N	8	8	8	8	
•	Period: Weel	k 13				
		41	44	56	59*	
	SD	6.0	10.4	7.0		
	N	8	8	8	8	12
	Period: Week	18				
		42	43	45	32	
	SD		8.4	8.6	7.4	
	N	4	4	4	4	
	Period: Week	26				
	MEAN	36	35	38	28	
	SD	5.2	35 5.6	16.1	3.3	
	N			4		

<sup>\*-</sup>Significant Difference from Control P < .05



### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Total Protein

	_	202. 20	July 11	ocein		
						SEX: MALE
STUDY ID: 097 STUDY NO: 097						
ABBR: TP						UNITS: g/dL
	ANALYSIS OF \					
	GROUP(S):	U	0.1	2.0	6.0	mg base/kg/day
	Period: Wee					
			6.2	6.3	63	
	SD	n 19	0.41	0.42	0.3	
	N	8	8	8	8	
		•	J	9		
	Period: Wee	k -1				
	MEAN	6.5	6.5	6.3 0.38	6.5	
	SD	0.30	0.35	0.38	0.27	
	N	8	8	8	8	
	Period: Wee	k 2				
	MEAN	6.7	6.7	7.0 0.32	7.0	
	N	8	8	8	8	
	Period: Wee	k 4				
	MEAN	6.7	6.5	6.5	6.6	
	SD	0.31	0.36	0.27	0.18	
	N	8	8	8	8	
	Period: Wee	k 8				
	MEAN	6.4	6.4	6.4	6.5	
				0.33		
	N	8	8	8	8	
4	Period: Wee	k 13				
	MEAN	6.4	6.3	6.4	6.4	
	SD	0.34	0.20	0.37	0.52	
	N	8	8	8	8	
	Period: Wee					
				6.4		
				0.53		
	N	4	4	4	4	
	Period: Wee	k 26				
			6.5	6.6	6.7	
	SD		0.27	0.49		
	30		0.21	0.47	/.	

#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Total Protein

STUDY 10: 097

SEX: FEMALE

STUDY NO: 097						
ABBR: TP						UNITS: g/dL
	ANALYSIS OF	VARIANCE FOR	FOMEO BY DE	JNNETT'S PRO	CEDURE	
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: We	ek -3		***********		a = a = p.a = a = a = a = a = a = p.a = a = a = a = a = a = a = a = a = a =
			6.7	6.5	6.6	
	SD	6.7 0.44	0.27	0.47	0.18	
	N	8	8	8	8	
	man tanka tta					
	Period: Wes	6.5	4.2	4 5	4 3	
	N	0.13	8	8		
	N	٥	٥	8	8	
	Period: Wee	k 2				
	MEAN	6.8	6.5	6.8	6.6	
	\$0	0.32	0.26	0.38	0.44	
	N N	8	8	8	8	
	Period: Wee	k 4				
	MEAN	6.3	6.5	6.5	6.2	
	SD	0.31	0.32	0.37	0.22	
	N	8	8	8	8	
	Period: Wee	L 0				
		6.4	63	6 1	63	
		0.43				
	N	8	8	8	8	
*						
	Period: Wee					
	MEAN	6.6	6.5	6.7	6.2	
	SD	0.31		0.30		
	N	8	8	8	8	
	Period: Wee	k 18				
	MEAN	6.6	6.3	6.2	5.9	
	SD	0.38	0.29	0.31	0.33	
	N	4	4	4	4	
	Period: Wee	k 26				
			6.2	6.5	6.4	
	MEAN	0.3		0.7		

0.22

SD

0.64

0.60

0.26

#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Albumin

STUDY ID: 097

SEX: MALE

STOOT ID: 097						OLA: PALL
STUDY NO: 097						INITE: m/di
ABBR: ALB						UNITS: g/dL
	ANALYSIS OF	VARIANCE FOL	LOWED BY DU	INNETT'S PRO	CEDURE	
	GROUP(s):	0	0.1	2.0	6.0	1 /1 / 1
						mg base/kg/day
	Period: We	ek -3				
	MEAN	3.2	3.2	3.1	3.2	
	SD	0.11	0.18	0.28	0.16	
	N	8	8	8	8	
	Period: We	ock -1				
			3.1	3 1	3.1	
	FIEAR	3.2 0.24	0.10	0.14	0.31	
		8				
	N	٥	8	8	8	
	Period: We	ek 2				
	MEAN	3.2	3.2	3.3	3.3	
	SD	0.12	0.18	0.12	0.10	
	N	8	8	8	8	
		0.7				
	Period: We	ek 4				
	MEAN	3.3	3.3	3.1	2.9*	
		0.11		0.07	0.12	
	N	8	8	8	8	
	Period: We	ek 8				
	MEAN	3.3	3.1	3.1	3.0	
	SD	0.16	0.10	0.17	0.23	
	N	0.16 8	8	8	8	
4	E777 4 300					
	Period: We	ek 13				
	MEAN	3.3	3.2	3.2	3.0	
		0.18	0.17			
	N	8	8	8	8	
	Period: We	ek 18				
			3.2	3.4	3.2	
	MEAN SD	0.24	0.15	0.14	0.25	
	N	4	4	4	4	
	Period: We	ab 26				
	MEAN		7 /	7.5	3 6	
	SD	0.10	0.25	0.13	0.08	

<sup>\*-</sup>Significant Difference from Control P < .05

### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Albumin

STUDY ID: 097						SEX: FEMALE
STUDY NO: 097 ABBR: ALB			UNITS: g/dL			
	ANALYSIS OF					
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Pariod: Un	V -3				
	MEAN	3.4	3.4	3.5	3.4	
	\$0	0.16	0.14	0.23	0.15	
	N	3.4 0.16 8	8	8	8	
	Period: Wee	k -1				
	MEAN	3.1	3.0	3.2	3.0	
	SD	0.17	0.23	0.20	0.17	
	N	8	0.23	8	8	
	Period: Wee	k 2				
	MEAN	3.2	3.1	3.4	3.1	
	SO	0.14	0.17	0.19	0.17	
	N	8	8	8	8	
	Period: Wee	k 4				
	MEAN	3.2 0.18	3.2	3.2	2.7*	
	SD	0.18	0.18	0.23	0.32	
	N	8	8	8	8	
	Period: Wee	k 8				
	MEAN	3.3	3.2	3.2	2.9*	
	SD	0.16	0.17		0.16	
	N	8	8	8	8	
	Period: Wee	k 13				
	MEAN SD	3.5	3.3	3.3	3.0*	
	SD	0.18	0.22	0.28	0.28	
	N	8	8	8	8	
	Period: Wee					
	MEAN SD	3.4	3.4	3.3	3.1 0.14	
	SD	0.17	0.14	0.38	0.14	
	N	4	4	4	4	
	Period: Wee	k 26				
	MEAN SD	3.5	3.3	3.7	3.5	
	SD	0.18	0.30	0.32	0.30	





#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Globulin

STUDY ID: 097						SEX: MALE			
STUDY NO: 097						UNITS: g/dL			
ABBR: GLOB	ANALYSIS OF	ANALYSIS OF VARIANCE FOLLOWED BY DUNNETT'S PROCEDURE							
						mg base/kg/day			
	Period: Wee								
	MEAN	3 7 7 3 7 7	<b>3</b> 1	3 2	3 1				
	SD	0.16	0.25	0.36	0.31				
	N	3.2 0.16 8	8	8	8				
	Period: Wee	ek -1							
	MEAN	3.3	3.5	3.3	3.4				
	SD	3.3 0.14	0.38	0.29	0.19				
	N	8	8	8	8				
	Period: Wee	ek 2	-						
	MEAN SO	3.5	3.5	3.7	3.7				
	SO	0.35	0.24	0.27	0.12				
	N.	8	8	8	8				
	Period: Wee	ok 4							
	MEAN	3 4	3.2	3.4	3.7				
	MEAN SD	0.32	0.30	0.24	0.23				
	N	8	8	8	8				
	••								
	Period: Wee	ek 8							
	MEAN								
	SD	0.39	0.24	0.29	0.24				
	N	8	8	8	8				
•	Period: Wee	1. 47							
	MEAN	K 13	7 2	7 7	7 /				
		0.26	8	8	8				
	N	0	0	0	0				
	Period: Wee	k 18							
	MEAN	3.2	3.2	3.0	3.5				
	SD	0.32	0.21						
	N	4	4	4	4				
	B2-4- 11	4 26							
	Period: Wee		7 3	7 4	7 4				
	MEAN	3.2	3.2	3.1	0.30				
	SD	0.28	0.24	0.37	0.29				
	N	4	4	4	4				

#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Globulin

STUDY ID: 097 STUDY NO: 097 ABBR: GLOB

SEX: FEMALE

UNITS: g/dL

AUAL YSTS	OF	VARIANCE	FOLLOWED.	RY	DUNNETT'S	PROCEDURE	
WWWLIDID	UI	ANVINACE	LOLLOWED	D	DOMME 11.3	PROCEDURE	

ANALYSIS OF	VARIANCE F	OLLOWED BY DU	JNNETT'S PRO	CEDURE	
ADOUD / - > -		0.1	2.0	4.0	
 GROUP(s):	0	U. I	2.0	0.0	mg base/kg/day
Period: Wee					
MEAN	3.3	3.2	3.0	3.3	
SD	0.36	0.22	0.26	0.13	
N	8	8	8	8	
Period: Wee					
* * * * * * * * * * * * * * * * * * * *	3.4	3.2 0.22	3.3	3.2	
SD				0.31	
N	8	8	8	8	
Period: Wee	k 2				
MEAN	3.6	3.4	3.5	3.5	
		0.21			
N	8		8	8	
N	0	0	٥	0	
Period: Wee					
MEAN	3.1	3.4	3.3	3.5	
SD	0.27	0.31	0.31	0.33	
N	8	8	8	8	
Period: Wee	LR				
MEAN	3 1	3.1	7 7	3 4	
SD		0.34		0.52	
N	8	8	8	8	
		_	_		
Period: Wee					
MEAN		3.2	3.3	3.3	
SD		0.18		0.37	
N	8	8	8	8	
Period: Wee	k 18				
MEAN	3.2	2.9	3.0	2.8	
SD	0.24	0.40	0.10	0.29	
N	4	4	4	4	
200					
Period: Wee		2.0	2 0	2.0	
		2.9		2.9	
SD	0.05	0.38	0.37	0.34	

#### Table 7.11

#### THIRTEEN WEEK ORAL TOXICITY STUDY OF WR 238605 WITH A THIRTEEN WEEK RECOVERY PERIOD IN DOGS

#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: A/G Ratio

STUDY ID: 097						SEX: MALE
STUDY NO: 097 ABBR: A/G	ANALYSIS OF	UNITS: -				
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
		-l. 7				
	Period: We	1 01	1 07	0.00	1 07	
	MEAN SD	0.060	0.064	0.99	0.007	
	N N	8	0.004	8	0.007	
	N	0	٥	٥	0	
	Period: We	ek -1				
	MEAN	0.96	0.89	0.96	0.93	
	MEAN SD	0.076	0.122	0.072	0.090	
		8			8	
	Period: We	و باه				
	MEAN	0 01	0.00	0.00	0.00	
	MEAN SD	0.91	0.70	0.50	0.70	
	N	8	8	8	8	
	14		Ü	•		
	Period: We	ek 4				
	MEAN SD	0.97	1.03	0.92	0.80*	
	SD	0.111	0.144	0.068	0.079	
	N	8	8	8	8	
	Period: We	ek 8				
	MEAN SD	1.03	0.96	0.95	0.89	
	SD	0.142	0.084	0.106	0.102	
	N	8	8	8	8	
•						
	Period: We	ek 13				
	MEAN SD	1.06	1.01	0.98	0.91*	
	N	8	8	8	8	
	Period: We	ek 18				
	MEAN SD	0.99	1.00	1.18	0.91	
			0.078	0.216		
	N	4	4	4	4	
	Period: We	ek 26				
	MEAN	1.12	1.07	1.17	1,17	
	SD	0.118	0.129	0.105	0.130	
	N	4	4	4	4	
	**	*	•			

<sup>\*-</sup>Significant Difference from Control P < .05



### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: A/G Ratio

STUDY 10: 097

SEX: FEMALE

STUDY NO: 097

ABBR: A/G	in water or	WARTANCE FO	110/50 07 00	Itanimenta La		UNITS: -
	ANALYSIS UF	VARIANCE FO	FLOWED BY D	UNNETT'S PR	OCEDURE	
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: We	eek -3				
	MEAN	1.04	1.07	1.15*	1.04	
	SD	0.105	0.086	0.054	0.067	
	N	8	8	8	8	
	Period: We	ek -1				
	MEAN	0.92	0.95	0.99	0.96	
	SD	0.084				
	N	8	8	8	8	
	Period: We	ek 2				
	MEAN	0.89	0.92	0.97	0.89	
	MEAN SD	0.057	0.077	0.086	0.073	
	N	8	8	8	8	
	Period: We	ek 4				
	MEAN		0.95	0.98	0.79*	
		0.113				
	N	8	8	8	8	
	Period: We	ek 8				
		1.05	1.04 0.146	0.97	0.85*	
	SD	0.150	0.146	0.092	0.146	
	N	8	8	8	8	
•	Period: We	ek 13				
	MEAN	1.10	1.04	1.02	0.92*	
			0.065		0.150	
		8	8	8	8	
	Period: We	ek 18				
	MEAN	1.09	1.21	1.11	1.13	
	SD		0.216		0.120	
	N	4	4	4	4	
	Period: We	ek 26				
		1.24	1.16	1.34	1.22	
	SD	0.054	0.252	0.133	0.091	

<sup>\*-</sup>Significant Difference from Control P < .05

#### Table 7.13

#### THIRTEEN WEEK ORAL TOXICITY STUDY OF WR 238605 WITH A THIRTEEN WEEK RECOVERY PERIOD IN DOGS

#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Total Bilirubin

STUDY ID: 097 STUDY NO: 097 SEX: MALE

ABBR: TBILI						UNITS: mg/dL
	ANALYSIS OF	VARIANCE FO	LLOWED BY D	UNNETT'S PR	OCEDURE	
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: Ve	ock -3				********
	MEAN	0.12	0.11	0.12	0.11	
	SD	0.034	0.020	0.020	0.023	
	MEAN SD N	8	8	8	8	
	Period: We	ek -1				
	MEAN SD	0.13	0.10	0.12	0.10	
	SD	0.024	0.042	0.020	0.056	
	N	8	8	8	8	
	Period: We	ek 2				
	MEAN	0.18	0.19	0.22	0.27*	
	SD	0.052	0.045	0.056	0.087	
	N	8	8	8	8	
	Period: We	ek 4				
	MEAN SD	0.21	0.16	0.22	0.23	
	SD	0.066	0.049	0.036	0.083	
	N	8	8	8	8	
	Period: We	ek 8				
	MEAN	0.15	0.15	0.16	0.16	
	SD	0.043	0.022	0.032	0.048	
	N	0.043	8	8	8	
•	Period: We	ek 13				
	MEAN	0.13	0.14	0.15	0.15	
	MEAN SD	0.031	0.026	0.026	0.044	
	N	8	8	8	8	
	Period: We	ek 18				
	MEAN	0.16	0.14	0.13	0.17	
	SD	0.050 4	0.033	0.029	0.042	
	N	4	4	4	4	
	Period: We	ek 26				
	MEAN SD	0.19	0.16	0.18	0.17	
	SD	0.050	0.039	0.063	0.076	
	M	4	4	4	4	

<sup>\*-</sup>Significant Difference from Control P < .05



#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Total Bilirubin

STUDY ID: 097 STUDY NO: 097 SEX: FEMALE

.....

ABBR: TBILI		ANALYSIS OF VARIANCE FOLLOWED BY DUNNETT'S PROCEDURE							
	ANALYSIS OF								
	GROUP(s):		0.1	2.0	6.0	mg base/kg/day			
	Period: We	ek -3							
	MEAN	0.09	0.09	0.10	0.09				
	SD	0.014	0.013	0.012	0.026				
	N	8	8	8	8				
	Period: We	ek -1							
	MEAN	0.11	0.10	0.13	0.10				
	SD	0.024	0.031	0.024	0.038				
	N	8	8	8	8				
	Period: We	ek 2							
	MEAN SD	0.22	0.17	0.27	0.26				
	SD	0.116	0.050	0.073	0.076				
	N	8	8	8	8				
	Period: We	ek 4							
	MEAN	0.19	0.19	0.25	0.18				
		0.058	0.038	0.051					
	N	8	8	8	8				
	Period: We	ek 8							
	MEAN SD	0.17	0.16	0.19	0.14				
	SD	0.042	0.042	0.050	0.025				
	N	8	8	8	8				
•	Period: We	ek 13							
	MEAN	0.17	0.18	0.18	0.13				
	SD	0.031	0.059	0.029	0.044				
	N	8	8	8	8				
	Period: Wee	ek 18							
	MEAN	0.22	0.17	0.16	0.12				
	MEAN SD N	0.066	0.044	0.029	0.026				
	N	4	4	4	4				
	Period: Wee	ek 26							
	MEAN								
	SD	0.046			0.010				
	44	,	,	,	,				

## SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Alkaline Phosphatase

STUDY ID: 097 STUDY NO: 097 SEX: MALE

STUDY NO: 097 ABBR: ALKP	ANALYSIS OF	UNITS: U/L				
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: We	ek -3		***********	***********	
	MEAN	132	158	121	120	
	SD	27.9	71.6	21.0	24.3	
	N	8	8	8	8	
	Period: We					
	MEAN	130	157	122	117	
	SD	19.7	55.6	30.1	23.4	
	N	8	8	8	8	
	Period: We	ek 2				
	MEAN	139	154	113	110	
	SD	26.4	57.8	20.9	20.0	
	N	8	8	8	8	1
	Period: Wee	ek 4				
	MEAN	129	140	110	106	
	SD	26.8	51.2	24.5	22.9	
	N	8	8	8	8	
	Period: Wee	ek 8				
	MEAN	115	125	104	98	
	SD	26.7	52.8	17.0	17.2	
	N	8	8	8	8	
	Period: Wee	ek 13				
	MEAN	94	105	90	83	
	SD	19.3	38.8	23.2	13.3	
	N	8	8	8	8	
	Period: Wee	ek 18				
	MEAN	91	92	92	96	

17.8

90

30.2

9.9

77

21.0

19.8

85 20.5

12.3

74

5.3

SD

SD

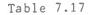
N

Period: Week 26



### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Alkaline Phosphatase

STUDY ID: 097 STUDY NO: 097 ABBR: ALKP						SEX: FEMALE UNITS: U/L
ADDR. ALAF	ANALYSIS OF					
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: Wee					
	MEAN	114	139	121	136	
	SD	12.1	34.1	56.2	45.0	
	N	8	8	8	8	
	Period: Wee	ek -1				
	MEAN	114	141	123	127	
	SD	16.7	53.1	61.1	44.6	
	N	16.7	8	8	8	
	Period: Wee					
	MEAN	120	153	125	135	
	SD	17.8	44.6	59.3	64.4	
	N	8	8	8	8	
	Period: Wee	ek 4				
	MEAN	111	125	117	117	
	SD	15.7	31.6	40.7	21.3	
	N	8	8	8	8	
	Period: Wee	k 8				
	MEAN	98	118	110	96	
	SD					
	N	8	8	8	8	
•	Period: Wee	k 13				
	MEAN	95	105	101	106	
	SD					
	N	8	8	8	8	
	Period: Wee	k 18	¥ =.			
	MEAN	79	94	94	108	
	SD N	15.2	29.5	40.1	36.0 4	
	Period: Wee	k 26				
	MEAN	71	99	97	116	
	SD	15.6	39.6	35.2	31.7	
	30		27.00	7		





#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Gamma Glutamyl Transferase

STUDY ID: 097 STUDY NO: 097 ABBR: GGT

SEX: MALE

UNITS: U/L

ANALYSIS	OF	VARIANCE	FOLLOWED	BY	DUNNETT'S	PROCEDURE

ANALYSIS OF \	ARIANCE FOLI	LOWED BY DU	OWED BY DUNNETT'S PROCEDURE				
GROUP(s):	0	0.1	2.0	6.0	mg_base/kg/day		
Period: Wee	k -3						
MEAN	3	3	4	3			
SD	1.4	1.8	1.1	1.6			
N	8	8	8	8			
Period: Wee	k -1						
MEAN	2	1	2	2			
SD	2.2	1.0	1.3	1.7			
N	8	8	8	8			
Period: Wee	k 2						
MEAN	1	1	1	1			
SD	0.7	1.5	1.2	1.2			
N	8	8	8	8			
Period: Wee	k 4						
MEAN	3	2	2	2			
SD	1.3	0.7	1.2	1.2			
N	8	8	8	8			
Period: Wee	k 8						
MEAN	3	4	3	2			
SD	1.5	1_8	1.3	1.4			
N	8	8	8	8			
Period: Wee	k 13						
MEAN	2	2	1	2			
SD	1.6	1.0	1.5	1.6			
N	8	8	8	8			
Period: Wee							
MEAN	2	4	4	3			
SD	1.5	0.6	2.6	1.3			
N	4	4	4	4			
Period: Weel							
MEAN	3	3	5	5			
SD	1.0	1.4	0.6	0.6			
N	4	4	4	4			



#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Gamma Glutamyl Transferase

ATINA 10- 007

SEX: FEMALE

STUDY ID: 097 STUDY NO: 097						SEX: FEMALE
ABBR: GGT	(10 Tex 10 to 1 Tex 10					UNITS: U/L
	ANALYSIS OF V	ARIANCE FO	DLLOWED BY DU	NNETT'S PRO	CEDURE	
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: Wee	k -3				
	MEAN	4	3	3	3	
	SD	1.4		1.4	0.8	
	N	8	8	8	8	
	Period: Wee	k -1				
	MEAN	2	2	3	1	
	SD	2.1	1.3	1.8	0.9	
	N	8	8	8	8	
	Period: Wee	k 2				
	MEAN	1	1	1	1	
	SD	0.9	1.2	0.7	1.1	
	N	8	8	8	8	
	Period: Wee	k 4				
	MEAN	1	2	2	2	
	SD	1.3	0.9	1.5	1.6	
	N	8	8	8	8	
	Period: Weel	k 8				
	MEAN	3	4:	3	3	
	SD	1.9	1.4	1.9	1.8	
	N	8	8	8	8	
	Period: Weel	k 13				
	MEAN	1	2	2	2	
	SD	1.7	1.5	1.8	1.3	
	N	8	8	8	8	
	Period: Weel	k 18				
	MEAN	4	4	3	3	
	SD	1.3	1.9	1.5	1.6	
	N.	4	4	4	4	
	Period: Weel	k 26				
	MEAN	4	3	6	3	
	SD	2.7	1.7	1.3	1.7	
	M	4	4	4	4	

#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Cholesterol

STUDY ID: 097 STUDY NO: 097 SEX: MALE

STUDY NO: 097 ABBR: CHOL	ANALYSIS OF	UNITS: mg/dL				
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: We	ek -3				
	MEAN	199	198	190	199	
	SD	33.7	34.9	20.9	30.4	
	N	8	8	8	8	
	Period: We	ek -1				
	MEAN	188	193	170	183	
	SD	23.8	33.6	23.1	24.4	
	N	8	8	8	8	
	posted the	al. 2				
	Period: Wed	179	187	477	178	
	SD		42.4	30.4		
	N N	8	8	30.4	19.3 8	
	Я	0	0	0	0	
	Period: Wee					
	MEAN	199	189	172	186	
	SD	30.8	35.6	14.3	16.9	
	N	8	8	8	8	
	Period: Wee	k 8				
	MEAN	149	163	146	157	
	SD	12.7	27.7		14.4	
	N	8	8	8	8	
	Period: Wee	J 17				
	MEAN	147	158	142	146	
	SD	24.4	29.5	12.1	25.4	
	N	8	8	8	8	
	Period: Wee	L 10				
	MEAN	151	175	151	163	
		5.3	35.1	27.7		
	SD N	3.3	33.1	4	36.2	
	N		4	4	4	
	Period: Wee					
	MEAN	162	198*	173	169	
	SD	11.0	23.7	15.7	3.9	

<sup>\*-</sup>Significant Difference from Control P < .05



#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Cholesterol

STUDY ID: 097						SEX: FEMALE
STUDY NO: 097						UNITS: mg/dL
ABBR: CHOL	ANALYSIS OF	VARIANCE FOL	LOWED BY DU	NNETT'S PRO	CEDURE	ORTIS. Hg/GL
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: We	ok -3	••••••			
	MEAN	196	191	187	194	
	SD	29.3			26.7	
	N	8	8	8	8	
	Period: We	ek -1				
	MEAN	187	183	190	183	
	SD	21.3	27.1	28.5	27.0	
	N	8	8	8	8	
	Period: Wee	sk 2				
	MEAN		177	174	182	
	SD	21.5		32.3	47.3	
	N	8	8	8	8	
	and de un	ala /				
	Period: Wee	186	204	188	186	
	7 1007 111			40.9	35.2	
	SD N	18.9	30.0	8	33.2	
	N				-	
	Period: Wee	ek 8				
	MEAN	165	192	164	155	
	SD	19.8	48.5	25.7	30.6	
	N	8	8	8	8	
*	Period: Wee	ek 13				
	MEAN	191	182	179	165	
	SD	39.7	31.8	49.5	28.9	
	N	8	8	8	8	
	Period: Wee					
	MEAN		185	195	164	
	SD	38.2	26.9	25.9	46.7	
	N	4	4	4	4	

Period: Week 26

MEAN SD

N

206

37.5

219

73.2

225

55.5

196

59.6



#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Triglycerides

SEX: MALE UNITS: mg/dL						STUDY ID: 097 STUDY NO: 097
0.11.00 11.97 0.2	CEDURE	NNETT'S PRO	LOWED BY DUI	VARIANCE FOLI	ANALYSIS OF	ABBR: TRY
mg base/kg/day	6.0	2.0	0.1	0	GROUP(s):	
					Period: Wee	
	44	45	44	42	MEAN	
	8.1	8.4	8.0	13.4	SD	
	8	8	8	8	N	
				ak -1	Period: Wee	
	50	45	45	46	MEAN	
	12.8	17.5			SD	
	8	8	8	8	N	
				ak 2	Period: Wee	
	37	34	38	33	MEAN	
	8.2	13.3	17.5	11.8	SD	
	8	8	8	8	N	
				ak 4	Period: Wee	
	53	47	44	46	MEAN	
	11.2		11.6		SD	
	8	8	8	8	N	
				ek 8	Period: Wee	
	56*	34	29	34	MEAN	
	16.9	9.9	7.1	10.7		
	8	8	8	8	N	
				ek 13	Period: Wee	
	47	38	44	37	MEAN	
	18.9	12.7	9.4	13.4	SD	
	8	8	8	8	N	
				ek 18	Period: Wee	
	45	31	34	41	MEAN	
	9.9	1.2	8.2	16.4	SD	
	4	4	4	4	N	

Period: Week 26

MEAN

SD

37

8.7

42

10.5

44

19.4

50

16.4



#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Triglycerides

STUDY ID: 097 STUDY NO: 097 SEX: FEMALE

WITE ma/di

ABBR: TRY						UNITS: mg/dL
	ANALYSIS OF	VARIANCE FOL	LOWED BY DU	NNETT'S PRO	CEDURE	
	GROUP(s):	0		2.0		mg base/kg/day
	Period: Wee					
	MEAN		43	35	38	
	SD	12.3		6.1	6.1	
	N	8	8	8	8	
	Period: Wee					
	MEAN	41	44	44	39	
	SD	9.0	13.0	10.2	12.4	
	N	8	8	8	8	•
	Period: Wee	k 2				
	MEAN	35	38	39	34	
	SD	16.0	5.4	13.9	10.1	
	N	8	8	8	8	
	Period: Wee					
	MEAN	44		54	52	
	SD	10.3		15.9	11.1	
	N	8	8	8	8	
	Period: Wee	k 8				
		34	41	45 19.0	42	
	SD	13.9			11.1	
•	N	8	8	8	8	
	Period: Wee					
		41	40	46	51	
	SD			21.2		
	N	8	8	8	8	
	Period: Wee				-	
	MEAN	44	34	39	38	
	SD	9.9		14.9	9.4	
	N	4	4	4	4	
	Period: Wee		2.20		-	
		41	41	37	33	
	SD	11.4	15.6	7.8	5.7	

#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Lactate Dehydrogenase

STUDY NO: 097 ABBR: LDH

SEX: MALE

UNITS: U/L

AMALYCIC	OF	VADIANCE	EUL LOUED	RV	DIMNETT/C	PROCEDURE	

ADDA. LUII						
	ANALYSIS OF	VARIANCE FO	LLOWED BY DU	JNNETT'S PR	OCEDURE	
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: We	ek -3				
	MEAN	104	53	76	73	
	SD	73.7	9.7	48.3	48.2	
	N	8	8	8	8	
	Period: We	ek -1				
	MEAN	116	126	163	125	
	SD	84.1	79.9	164.8	97.2	
	N	8	8	8	8	
	Period: We	ek 2				
	MEAN	86	75	102	78	
	SD	81.0	44.7	82.8	52.7	
	N	8	8	8	8	
	Period: We	ek 4				
	MEAN	60	77	111	116	
	SD	20.0	31.4	94.6	91.3	
	N	8	8	8	8	
	Period: We	ek 8				
	MEAN	39 7.5	58	76	78	
	SD	7.5	40.7	45.9	29.6	
	N	8	8	8	8	
	Period: We					
	MEAN	87	100	119	71	
	SD	96.1	100.1	69.9	28.5	
	N	8	8	8	8	
	Period: We					
	MEAN		98	63	47	
		129.1	81.1	41.0	23.7	
	N	4	4	4	4	
	Period: We			25		
	MEAN	139	73	38	93	
	SD	109.8	46.3	10.4		
	All .	6		6	6	



#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Lactate Dehydrogenase

STUDY ID: 097						SEX: FEMALE
STUDY NO: 097 ABBR: LDH						UNITS: U/L
	ANALYSIS OF	VARIANCE FO	LLOWED BY DU	INNETT'S PRO	CEDURE	
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
••••••	Period: Wee					
	MEAN	90	120	87	86	
	SD	37.3	61.1	36.0	62.5	
	N	8	8	8	8	
	Period: Wee	ek -1				
	MEAN		131	71	90	
			140.4		53.8	
	N	8	8	8	8	
	Period: Wee	k 2				
	MEAN	83	61	75	82	
	SD	61.9	25.9	75 60.1	49.3	
	N	8	8	8	8	
	Period: Wee					
	MEAN	61	110		119	
	SD	30.4	114.4	66.4	95.1	
	N	8	8	8	8	
	Period: Wee					
	MEAN	53 13.0	58	90	77	
	SD	13.0	24.7	62.7	39.0	
	N	8	8	8	8	
	Period: Wee					
	MEAN	78	70	68	103	
	SD	53.2	47.1	28.2	79.4	
	N	8	8	8	8	
	Period: Wee					
	MEAN	104	69	63	51	
			45.1		30.3	
	N	4	4	4	4	
	Period: Wee					
	4.40° A.44	En	17		E 2	

57

48.9

43

10.2

64

30.0

MEAN

SD N 52

11.8



#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Creatine Kinase

STUDY ID: 097 STUDY NO: 097 ABBR: CK

SEX: MALE

UNITS: U/L

ANALYSIS	OF	VARIANCE	FOLLOWED	BY	DUNNETT'S	PROCEDURE

ADDIT OR	ANALYSIS OF	VARIANCE FO	DLLOWED BY D	UNNETT'S PR	OCEDURE	001
	GROUP(s):	0	0.1	2.0	6.0	
						mg_base/kg/day
	Period: We	ek -3				
	MEAN	283	194 39.3	261	252	
	SD	119.9	39.3	89.5	114.6	
	И	8	8	8	8	
	Period: We					
	MEAN	255	230	297		
	SD	76.3	95.7	141.5	111.7	
	N	8	8	8	8	
	Period: We					
	MEAN	287	282	294	254	
	SD	162.9	181.0	185.8	50.0	
	N	8	8	8	8	
	Period: Week 4					
	MEAN	307	251	235	259	
	SD		106.1			
	N	8	8	8	8	
	Period: We	ek 8				
	MEAN	225	200	247	227	
	SD	60.9	115.4		77.7	
	N	8	8	8	8	
*	Period: We	ek 13				
	MEAN	221	215	289	214	
	SD	72.5	99.1	103.9	87.5	
	N	8	8	8	8	
	Period: We	ek 18				
	MEAN		209	232	257	
	SD			143.0		
	N	4	4	4	4	
	Period: We	ek 26				
	MEAN		138	194	234	
	SD	78.2		102.4	72.2	
	N	/ /		10214	/	



#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Creatine Kinase

SEX: FEMALE

STUDY ID: 097 STUDY NO: 097						SEX: FEMALE
ABBR: CK						UNITS: U/L
	ANALYSIS OF					
	GROUP(s):			2.0		mg base/kg/day
	Period: We	ek -3				
	MEAN	200	206	190	177	
	SD	52.4	40.3	45.3	44.1	
	N	8	8	8	8	
	Period: We					
	MEAN	153	215	236	211	
	SD	48.3	95.7	123.9	71.5	
	N	8	8	8	8	
	Period: We					
	MEAN	244	275	209	179	
	SO	88.4	134.7	48.8	66.0	
	N	8	8	8	8	
	Period: We	ek 4				
		213			157	
		61.5	217.8	312.8	62.1	
	N	8	8	8	8	
	Period: We	ek 8				
	MEAN	284	262 107.6	227	161	
	SD	104.0	107.6	119.1	51.2	
	N	8	8	8	8	
•	Period: We	ek 13				
	MEAN			214	172	
	SD	52.2		72.9	63.6	
	N	8	8	8	8	
	Period: We	ek 18				
	MEAN	183	184	226		
		35.6		42.2		
	N	4	4	4	4	
	Period: We	ek 26				
	MEAN	156	165	190 126.5	119	
	SD	30.6	44.4	126.5	29.6	



## SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Blood Urea Nitrogen

STUDY ID: 097

SEX: MALE

STUDY NO: 097

ABBR: BUN	ANALYSIS OF	UNITS: mg/dL				
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/da
	Period: Wee	k -3		***********		
	MEAN	11.8	11.4	11.5	12.1	
	SD	1.15	1.76	2.12	1.72	
	И	8	8	8	8	
	Period: Wee	ek -1				
	MEAN	12.5	11.0	11.2	12.8	
	SD	2.49	1.23	1.76	1.38	
	N	8		8	8	
	Period: Wee	k 2				
	MEAN	14.1	13.8	13.5	14.1	
	SD			2.37		
	N	8	8	8	8	
	Period: Wee					
	MEAN		14.1	14.0	16.2	
	SD	2.13	14.1 2.83	2.44	2.97	
	N	8	8	8	8	
	Period: Wee	k 8				
	MEAN	15.0	14.5	14.2	15.7	
	SD	2.47	2.04	1.25	3.46	
	N	8	8	8	8	
•	Period: Wee					
	MEAN	14.7 2.39	14.5	14.7	16.2	
	SD	2.39	1.86	1.06	3.08	
	N	8	8	8	8	
	Period: Wee					
		14.8				
	SD	0.70	1.98	1.19	2.18	
	N	4	4	4	4	
	Period: Wee					
	MEAN	14.7 1.92	14.3	14.0	16.1	
	SD	1.92	3.64	3.23	2-92	



### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Blood Urea Nitrogen

STUDY NO: 097 ABBR: BUN	ANALYSIS OF VARIANCE FOLLOWED BY DUNNETT'S PROCEDURE					UNITS: mg/dL
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
••••••	Period: Wee					
	MEAN	12.0	11.5	11.8	11.0	
	SD			1.68		
	N	8	8	8	8	
	Period: Wee	k -1				
		12.6	11.3	12.9	12.6	
	SD			1.49		
	N	8	8	8	8	
	Period: Wee	k 2				
	MEAN		14.0	13.8	14.4	
	SD			1.68		
	N	8	8	8	8	
	Period: Wee	k 4				
	MEAN		14.1	14.2	12.3	
	SD	1.32	1.57	2.38	1.52	
	N	8	8	8	8	
	Period: Wee	k 8				
	MEAN		16.3	15.2	15.0	
	SD			3.19		
	N	8	8	8	8	
	Period: Wee	k 13				
	MEAN		15.3	16.4	14.0	
	SD	2.37	2.03	2.38	1.24	
	N	8	8	8	8	
	Period: Wee	k 18				
	MEAN	15.6	15.5	15.2	16.5	
	SD	1.32	2.29	15.2 1.12	1.70	
	N	4	4	4	4	
	Period: Wee	k 26				
		13.9	16.3	14.5	15.1	
	SD	1.38	1.69		1.21	
	N	4	4	4	4	

#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Creatinine

STUDY ID: 097 STUDY NO: 097 SEX: MALE

ABBR: CREA	ANALYSIS OF	UNITS: mg/dL				
	ANALISIS OF	VARIANCE FO	LLOWED BI D	JUNE 11.2 PK	JCEDOKE	
	GROUP(s):	0	0.1	2.0	6.0	mg_base/kg/day.
	Period: We	ek -3				
	MEAN	0.62	0.61	0.62	0.66	
	SD	0.044			0.059	
	N .	8	8	8	8	
	Period: We	ek -1				
	MEAN	0.69	0.68	0.68	0.69	
		0.061				
	N	8	8	8	8	
	Period: We	ek 2				
	MEAN SD	0.70	0.67	0.72	0.77	
	SD	0.036	0.077	0.029	0.072	
	N	8		8	8	
	Period: We	ek 4				
		0.70	0.71	0.72	0.72	
		0.049				
	N	8	8	8	8	
	Period: We	ek 8				
			0.73	0.77	0.79	
	SD	0.72 0.050	0.078	0.060	0.095	
	N	8	8	8	8	
•	Period: We	ek 13				
	MEAN		0.73	0.75	0.72	
		0.043				
	N	8	8	8	8	
	Period: We	ek 18				
	MEAN	0.73	0.74	0.76	0.76	
	SD	0.73 0.017	0.047	0.070	0.084	
	N	4	4	4	4	
	Period: We	ek 26				
	MEAN		0.76	0.77	0.82	
	SD		0.088			
		,	,	,	,	

N

### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Creatinine

STUDY ID: 097						SEX: FEMALE
STUDY NO: 097 ABBR: CREA	ANALYSIS OF VARIANCE FOLLOWED BY DUNNETT'S PROCEDURE				UNITS: mg/dL	
	ANALYSIS OF	VARIANCE FO	LLOWED BY D	UNNETT'S PR	OCEDURE	
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
•••••	Period: We	ek -3				
	MEAN	0.68	0.68	0.66	0.65	
	SD	0.048	0.055	0.047	0.036	
	N		8		8	
	Period: We	ek -1				
	MEAN	0.71	0.70	0.71	0.67	
	SD		0.088			
	N	8	8	8	8	
	Period: We	ek 2				
	MEAN	0.70	0.71	0.76	0.69	
	SD	0.054	0.072	0.054	0.060	
	N	8	8	8	8	
	Period: We	ek 4				
	MEAN	0.71	0.73	0.74	0.67	
	SD	0.050	0.055	0.037	0.032	
	N	8	8	8	8	
	Period: Week 8					
	MEAN	0.72	0.75			
	SD	0.068		0.055	0.059	
	N	8	8	8	8	
•	Period: Week 13					
	MEAN	0.69	0.72 0.076	0.74	0.68	
	SD	0.046	0.076	0.083	0.096	
	N	8	8	8	8	
	Period: Wee					
		0.81				
	SD	0.057	0.037	0.102	0.089	
	N	4	4	4	4	
	Period: Wee					
	MEAN	0.73	0.74	0.75	0.68	

SD

0.067

0.024

0.040

0.021

#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Sodium

STUDY ID: 097 STUDY NO: 097						SEX: MALE
ABBR: NA	ANALYSIS OF V	ARIANCE FOL	LOWED BY DU	NNETT'S PRO	CEDURE	UNITS: mmol/L
	GROUP(s):	0	0.1	2.0	6.0	no hoco/ko/do
	GKOUP(S):	_	U. I	2.0	0.0	mg base/kg/day
	Period: Wee					
	MEAN	143		144	143	
	SD	1.8	1.2	1.0	0.9	
	N	8	8	8	8	
	Period: Wee	k -1				
		143	145	144	143	
	SD	1.9	1.1	1.2	1.0	
	N	8	8	8	8	
	Period: Wee	k 2				
	MEAN	144	144	145	145	
	SD	1.2	0.7	1.5	0.9	
	N	8	8	8	8	
	Period: Weel	k 4				
	MEAN	146	145	146	145	
	SD	1.3	1.3	1.4	1.3	
	И	8	8	8	8	
	Period: Weel	k 8				
	MEAN	145	144	145	144	
	SD	1.6	1.5	1.7	1.2	
	N	8	8	8	8	
	Period: Weel	k 13				
	MEAN	145	145	145	144	
	SD	1.6	1.4	0.8	1.5	
	N	8	8	8	8	
	Period: Week					
	MEAN	145	145	146	145	
	SD	0.8	1.3	1.3	1.8	
	N	4	4	4	4	
	Period: Week					
	MEAN	146	143	145	144	
	SD	1.0	1.0	1.3	1.5	
	М	4	4	4	4	

N

#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Sodium

STUDY ID: 097						SEX: FEMALE
STUDY NO: 097 ABBR: NA						UNITS: mmol/L
	ANALYSIS OF VAR					
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: Week	-3				
	MEAN	145	143	144	143	
	SD	1.3	1.0	1.6	0.9	
	N	8	8	8	8	
	Period: Week	- 1				
	MEAN	144	144	144	143	
	SD	1.9	0.5	0.8	1.0	
	N	8	8	8	8	
	Period: Week 2	2				
	MEAN	143	144	144	144	
	SD	1.5	1.3	1.1	1.3	
	N	8	8	8	8	
	Period: Week	4				
	MEAN	145	145	145	144	
	SD	1.2	0.9	1.5	2.1	
	N	8	8	8	8	
	Period: Week 8	3				
	MEAN	145	143	144	144	
	SD	1.1	1.4	1.7	2.4	
	N	8	8	8	8	
`	Period: Week 1					
	MEAN	144	145	144	144	
	SD	2.0	1.2	1.5		
	N	8	8	8	8	
	Period: Week 1	18				
	MEAN	145	145	144	143	
	SD	1.7	1.7	1.5	0.5	
	N	4	4	4	4	
	Period: Week 2					
	MEAN	145	142*	143*	145	
	SD	1.0	0.8	0.5	2.2	
	N	4	4	4	4	

<sup>\*-</sup>Significant Difference from Control P < .05



## SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Potassium

STUDY ID: 097 STUDY NO: 097						SEX: MALE
ABBR: K	ANALYSIS OF	VARIANCE FO	LLOWED BY D	UNNETT'S PRO	OCEDURE	UNITS: mmol/L
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: We	ek -3				
	MEAN	4.61	4.84	4.95×	4.65	
	SD	0.195	0.222	0.191	0.168	
	N	8	8	8	8	
	Period: We	ek -1				
	MEAN	4.61	4.65	4 44	4.48	
	50	0.217	0 220	0.313	0.205	
		8				
	Period: We	ek 2				
	MEAN	4.45	4.30	4.29	4.29	
	SD	0.328	0.244	0.304	0.245	
	MEAN SD N	8	8	8	8	
	Period: We	ek 4				
	MEAN	4.36	4.46	4.40	4.31	
	MEAN SD	0.241	0.235	0.196	0.209	
	N	8	8	8	8	
	02-4-11-	-l. 0				
	Period: We MEAN	ek o , ,7	/ /7	/-/-	/ 70	
	MEAN	4.43	4.43	4.45	4.32	
	SD	0.355	0.226	0.224		
	N	8	8	8	8	
4,	Period: We	ek 13				
	MEAN	4.30 0.275	4.51	4.30	4.45	
	SD	0.275	0.346	0.245	0.264	
	N	8	8	8	8	
	Period: We	ab 19				
	Period: We	/ E2	/ 52	/ EE	/ 32	
	MEAN	4.32	4.56	0.117	0.3/3	
	MEAN SD N	U.273	0.214	0.115	0.242	
	N	**	**	**	4	
	Period: We					
	MEAN	4.27	4.47	4.28	4.32	
		0.004	0 707	0.077	0 700	

0.303

4

0.094

0.173

4

0.300

4

SD

N



#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Potassium

STUDY ID: 097 STUDY NO: 097 SEX: FEMALE

UNITS: mmol/L

ABBR: K		UNITS: mmol/L				
	ANALYSIS OF	VARIANCE F	OLLOWED BY D	UNNETT'S PR	OCEDURE	
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: We	ek -3				
	MEAN	4.54	4.61	4.68	4.83	
	MEAN SD	0.375	0.219	0.227	0.242	
	N	8	8	8	8	
	Period: We	ek -1				
	MEAN	4.32	4.45	4.51	4.38	
			0.168			
	N	8	8	8	8	
	Period: We	ek 2				
	MEAN	4.23	4.17	4.22	4.23	
	SD	0.210	0.155	0.182	0.232	
	MEAN SD N	8	8	8	8	
	Period: We	ek 4				
	MEAN	4.30	4.44	4.31	4.49	
	SD	0.269	0.307	0-202	0.268	
	N	8	8	8	8	
	Period: Wee	k 8				
	MEAN	4.37	4.19	4.44	4.48	
	MEAN SD	0.292	0.203	0.313	0.170	
		8		8	8	
•	Period: Wee	k 13				
	MEAN		4.33	4.42	4.48	
	SD		0.205			
	N	8	8		8	
	Period: Wee	k 18				
			4.27	4.43	4.38	
	SD	0.287	0.128	0.129	0.374	
	MEAN SD N	4	4	4	4	
	Period: Wee	k 26				
			4.16	4.36	4.58	
	SD	0.323	0.419	0.491	0.334	
			,	,	,	



#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Chloride

STUDY ID: 097 STUDY NO: 097 SEX: MALE

CTUDY NO. 007						JEAN HALL
STUDY NO: 097						UNITS: mEq/L
ABBR: CL	ANALYSIS OF	APTANCE FOL	LOUED BY DIE	METT/C DDO	CENTRE	ONTIS: MEQ/L
		VARIANCE FOL	LOWED BY DON	WEIL'S PRO		
		0	0.1	2.0	6.0	mg/base/kg/day
	Period: Wee	k -3				
	MEAN	120 2.4	118	120	119 2.7	
	SD	2.4	2.6	3.0	2.7	
	N	8	8	8	8	
	mustada ttaa	t. 4				
	Period: Wee		118	44/	440	
	MEAN					
	SD	3.4	4.2	3.3		
	N	8	8	8	8	
	Period: Wee	k 2				
	MEAN	123	124	125	128	
	50	2.9	4 0	2 1	12.6	
	N	8	8	8	8	
	N	J	0	0	0	
	Period: Wee					
	MEAN	121 2.1	118*	120	121	
	SD	2.1	2.9	1.7	1.6	
	N	8	8	8	8	
	no todo tro-	. 0				
	Period: Wee		407	400	407	
	MEAN	128	127			
	SD	14.3	8.7	4.8	1.4	
	N	8	8	8	8	
*	Period: Wee	k 13				
	MEAN		116	122	120	
	SD					
	N	8	8	8	8	
	N	0	0	0	J	
	Period: Wee	k 18				
	MEAN	117 2.5	118	116	116	
	SD	2.5	2.2		3.1	
	N	4	4	4	4	
	Period: Week	V 26				
			127	124	123	
	MEAN SD	124 1.0	123 1.7	5 7	2.8	
	N	4	4	4	4	

<sup>\*-</sup>Significant Difference from Control P < .05



#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Chloride

STUDY ID: 097						SEX: FEMALE			
STUDY NO: 097 ABBR: CL	ANALYSIS OF VAR	TANCE EC	NI OUED BY	DIMETTIC :	noosalins	UNITS: mEq/L			
	ANALYSIS OF VAR	IANCE FO	DEFOMED BI	DONNETT'S I	RUCEDURE				
						mg base/kg/day			
	Period: Week								
			127	120	121				
	SD	7 6	123 2.6	120 3.1	2.9				
		3.0		8	8				
	N	0	0	٥	0				
	Period: Week -1								
	MEAN	117	114	116	116				
	SD	2.0	2.7	4.6	3.3				
	N	8	8	8	8				
	Period: Week 2								
			127	476	171				
				32.8					
	N	8	8	8	8				
	Period: Week 4								
	MEAN			119					
	SD	2.7	3.3	3.2	4.5				
	N	8	8	8	8				
	Period: Week 8	ı.							
		125	122	123	123				
	SD	6.0	3.2	4.8	4.1				
	Ni	8			8				
	N	0	٥	0	8				
•	Period: Week 1	3							
	MEAN	119	120	121	118				
	SO	5.0	4.4	5.3	6.0				
	N	8	8	8	8				
	Period: Week 1	R							
			114	118	117				
				3.0					
	N 2D	3.0	4	3.0	4				
	п	~	**	- **	-				
	Period: Week 2	6							
	MEAN		122	120	122				
		_			_				

2.6

1.6

SD

3.2

3.6



## SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Calcium

STU0Y ID: 097						SEX: MALE			
STUDY NO: 097 ABBR: CA	ANALYSIS OF	VADIANCE FO	LOUED BY S	INDIETT (O DO	OCEDI IDE	UNITS: mg/dL			
	ANALTSIS UF	ANALYSIS OF VARIANCE FOLLOWED BY DUNNETT'S PROCEDURE							
	GROUP(s):	0	0.1	2.0		mg/base/kg/day			
	Period: We	ek -3							
	MEAN	10.3	10.2	10.1	10.1				
	SD	0.38	0.32	0.25	0.29				
	N	8	8	8	8				
	Period: Wee	ek -1							
	MEAN SD	10.4	10.3	10.3	10.3				
	SD	0.45	0.22	0.31	0.18				
	N	8	8	8	8				
	Period: Wee	ek 2							
	MEAN	10.5	10.2	10.4	10.5				
	SD	0.25	0.30	0.26	0.20				
	N	8	8	8	8				
	Period: Wee	ek 4							
		10.2							
	SD	0.38	0.33						
	N	8	8	8	8				
	Period: Wee								
	MEAN			9.7					
	SD		0.30	0.33	0.31				
	N	8	8	8	8				
`	Period: Wee								
	MEAN	10.0	9.8 0.64	10.1 0.46	9.9				
	SD	0.31	0.64	0.46	0.45				
	N	8	8	8	8				
	Period: Wee								
	MEAN	10.2	10.0	10.1	10.3				
	SD	0.51	0.17	0.19	0.33				
	N	4	4	4	4				
	Period: Wee								
	MEAN			9.9					
	SD	0.22	0.60	0.44	0.34				

## SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Calcium

STUDY ID: 097						SEX: FEMALE
STUDY NO: 097 ABBR: CA		MADIANCE FOI	LOUIS BY BU	NINETTIC DOC	050105	UNITS: mg/dL
	ANALYSIS OF	VARIANCE FOL	LOWED BY DO	NNEIL'S PRO	CEDUKE	
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: Wee	k -3				
	MEAN					
	SD	0.33	0.40	0.43	0.35	
	N	8		8	8	
	Period: Wee	k -1				
	MEAN	10.2	10.4	10.5	10.2	
	SD	0.34	0.38	0.24	0.12	
	N	8	8	8	8	
	Period: Wee	k 2				
	MEAN	10.3	10.3	10.5	10.2	
	SD	0.24	0.29	0.24	0.39	
	N	8	8	8	8	
	Period: Wee					
	MEAN	10.0	10.3	10.0	9.7	
	SD		0.41	0.26	0.29	
	N	8	8	8	8	
	Period: Wee	k 8				
	MEAN	9.9	10.0	9.8	9.7	
	SD	0.32	0.57	0.37	0.21	
	N	8	8	8	8	
•	Period: Wee	k 13				
		10.2				
	SD	0.35		0.52	0.50	
	N	8	8	8	8	
	Period: Wee					
	MEAN	10.3 0.38	10.1	10.2	10.2	
	SD	0.38		0.50	0.24	
	N	4	4	4	4	
	Period: Wee	k 26				
	MEAN	10.4	9.9	10.2	10.1	
	SD	0.56	0.28	0.24	0.47	

## SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Inorganic Phosphorus

STUDY ID: 097 STUDY NO: 097 SEX: MALE

ABBR: IP									
ADDR. II	ANALYSIS OF	VARIANCE FO	LLOWED BY DU	INNETT'S PRO	CEDURE	UNITS: mg/dL			
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day			
	Period: Wee								
			6.3	6.3	5.7				
	SD								
	N	8	8	8	8				
	Daniada Has	de . 4							
	Period: Wee		E 4	5.6	5.5				
	MEAN	0.70	5.6	0.50	0.44				
	SD		0.38						
	N	8	8	8	8				
	Period: Wee	k 2							
	MEAN	6.0							
	SD		0.25	0.47	0.45				
	N	8	8	8	8				
	Period: Wee	k 4							
	MEAN SD	5.7	5.6	5.3	5.1				
	SD	0.63	0.67	0.60	0.39				
	N	8	8	8	8				
	Period: Wee	L B							
	MEAN	5.4	4.9	5.0	4.8				
	SD								
	N N	8		8	8				
	N.	0	0	0	0				
•	Period: Wee								
	MEAN				4.8				
	SD		0.50		0.38				
	N	8	8	8	8				
	Period: Wee	k 18							
	MEAN	4.9	4.6	4.8	4.9				
	SD	0.66	0.98	0.57	0.26				
	N	4	4	4	4				
	Period: Wee	k 26							
	MEAN	4.2	4.5	4.6	4.1				
	SD	0.93	4.5 0.63	1.03	1.06				
	N								

<sup>\*-</sup>Significant Difference from Control P < .05

# SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Inorganic Phosphorus

STUDY ID: 097 STUDY NO: 097 SEX: FEMALE

ABBR: IP						UNITS: mg/dL		
	ANALYSIS OF	VARIANCE FOL	LOWED BY DU	NNETT'S PRO	CEDURE			
	GROUP(s):		0.1	2.0	6.0	mg base/kg/day		
	Period: We	ek -3						
	MEAN	5.7	5.4	6.0	5.7			
	SD	0.51	0.59	0.74	0.83			
	N	8	8	8	8			
	Period: Week -1							
	MEAN	5.4	5.5	5.3	5.4			
	SD	0.56	0.47	0.48	0.26			
	N	8	8	8	8			
	Period: Wee	ek 2						
	MEAN	5.2	4.9	5.0	5.3			
	SD	1.01	0.47	0.71	0.45			
	N	8	8	8	8			
	Period: Wee	ek 4						
	MEAN	5.2	5.3	5.2	5.2			
	SD		0.35					
	N	8	8	8	8			
	Period: Wee	k 8						
	MEAN	4.7	4.8	4.4	4.8			
	SD	0.34	0.64	0.35	0.45			
	N	8	8	8	8			
•	Period: Wee	k 13						
	MEAN	4.3	4.6	4.5	4.7			
	SD		0.43					
	N	8	8	8	8			
	Period: Wee	k 18						
	MEAN	4.5	4.0*	3.8*	4.3			
	SD	0.38	0.14	0.30	0.22			
	N	4	4	4	4			
	Period: Wee	k 26						
	MEAN	4.4	3.8	3.9	3.9			
	SD		0.26					
		,	,	,	,			

4

<sup>\*-</sup>Significant Difference from Control P < .05

## SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Glucose

STUDY ID: 097						SEX: MALE
STUDY NO: 097						
ABBR: GLU	٧٥١٥ ٥٢	VADIANCE FOR	LOUTE BY DE	NINETT (C. DDC	araliar	UNITS: mg/dL
	ANALYSIS OF					
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: Wee	ek -3				
	MEAN	125	115	118	119	
	SD	7.5			10.2	
	N	8	8	8	8	
	Period: Wee	ek -1				
		118	119			
	SD	5.2	17.7	7.3	10.6	
	N	8	8	8	8	
	Period: Wee	ek 2				
	MEAN	122	126	122	126	
	SD	11.4	15.1	12.0	14.8	
	N	8	8	8	8	
	Period: Wee	k 4				
	MEAN	116	114	115	115	
	SD	10.6	9.7	4.8	6.7	
	N	8	8	8	8	
	Period: Wee	ek 8				
	MEAN	121	121	117	112	
	SD	7.9	11.1	6.9	13.5	
	N	8	8	8	8	
•	Period: Wee	k 13	•			
	MEAN	116	113	111	108	
	SD	11.3	11.3	6.6	8.4	
	N	8	8	8	8	
	Period: Wee	k 18				
	MEAN	123	119	115	120	
	SD	7.5	4.5	9.3	11.9	
	N	4	4	4	4	
	Period: Wee	k 26				
	MEAN	122	116	114	108	
	SD	11.8	7.3	2.8	19.6	

## SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Glucose

STUDY ID: 097 STUDY NO: 097 ABBR: GLU

SEX: FEMALE

UNITS: mg/dL

 ANALYSIS OF				
	0		2.0	

ANALISIS	OF VARIANCE FO	LLOWED BY DO	NNEIL'S PRO	JCEDUKE	
GROUP(s)	0	0.1	2.0	6.0	mg base/kg/day
Period	: Week -3				
MEAN	122	117	114	121	
SD	8.4	7.2	10.6	6.9	
N	8	8	8	8	
Period:	: Week -1				
MEAN	115	106	113	115	
SD	8.2	13.5	9.5	9.2	
N	8	8	8	8	
Period:	Week 2				
MEAN	124	116	120	120	
SD	12.5	10.6	14.4	8.4	
N	8	8	8	8	
Period:	Week 4				
MEAN	111	115	109	103	
SD	11.2	9.0	7.4	8.2	
N	8	8	8	8	
Period:	Week 8				
MEAN	115	113	111	109	
SD	10.7	5.7	12.2	10.1	
N	8	8	8	8	
Period:	Week 13				
MEAN	112	110	108	99	
SD	12.8	11.8	10.7	13.4	
N	8	8	8	8	
	Week 18				
MEAN	113	113	113	108	
SD	7.4	12.7	12.1	12.0	
N	4	4	4	4	
Period:	Week 26				
MEAN	109	116	105	109	
SD	8.2	6.5	5.0	11.2	
N	4	4	4	4	

#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Haptoglobin

STUDY ID: 097 STUDY NO: 097

ABBR: HAPT

SEX: MALE

UNITS: mg/dL

ANALYSIS OF VARIANCE FOLLOWED BY DINMETTIC BROOK

MODIL O HING I						0111101 11.37 44
	ANALYSIS O	F VARIANCE FO	LLOWED BY D	UNNETT'S PRO	CEDURE	
***************************************	00010/->-		0.4	2.0		
	GROUP(s):	U	0.1	2.0	6.0	mg base/kg/day
	Period: N	łeek -3				
			71.9	70.2	81.0	
	SD	70.1 50.47	33.44	39.43	40.59	
	N		8			
	Period: 1					
		71.5				
	SD	35.87			46.49	
	N	7	8	8	8	
	Paniod: L	leek 2				
	MEAN	70 E	97.0	11/ 5	08 3	
	SD	79.5 59.55	48 03	30 3/	73 80	
	N	57.55	8	7	8	
	N	,			0	
	Period: W	leek 4				
		74.4				
	SD	52.54	32.64	50.69	90.91	
	N	5	8	8	8	
•	Period: W	look 8				
		87.5	88 0	150 5	178 6*	
	SD	52.80	64.62	42.94	65.92	
	N	5	8	8	8	
	N	,	0	0	0	
	Period: W	leek 13				
		76.1				
	SD	52.09	47.38	44.86		
	N	3	7	8	8	
	Period: L	leek 18				
		76.8	92.3	105.0	89.3	
	SD	47.25	57.67	21.03	52.99	
	N	4	4	21.03	4	
	Period: W			45.	45.0	
	MEAN	152.6	287.0	65.6 34.42	65.9	
	SD					
	N	2	3	4	4	

<sup>\*-</sup>Significant Difference from Control P < .05

#### SUMMARY OF CLINICAL CHEMISTRY TESTS TEST: Haptoglobin

STUDY ID: 097 STUDY NO: 097 ABBR: HAPT SEX: FEMALE

UNITS: mg/dL

AMAL VOTO	OF	MARTANCE	FOLLOW IN	n.v			
ANALISIS	Ur	VARIANCE	LOTTORED	BT	DUNNETT'S	PROCEDURE	

GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
 Period: We	ab _7	• • • • • • • • • • • • • • • • • • • •			
MEAN		50.0	68.2	95 /	
	36.18	27.0	00.2	00.0	
N	8	8	8	8	
Period: We	ek -1				
MEAN	79.5	93.0	62.4	73.0	
SD	75.49	54.73	30.49	35.73	
N	7	7	8	7	
Period: We	ak 2				
	60.9	52 7	44. 7	08 7	
	40.09				
N	40.09		51.51		
N	4	4	5	8	
Period: We	ek 4				
MEAN	30.3	38.6	122.8	324.2*	
SD	12.83	23.55	76.74	105.36	
N	3	3	8	8	
Period: We	ek 8				
	40.9	85.4	90.6	210.3*	
SD	31.02	NA.	43.24		
N	3	1	5	7	
Period: We	1. 47				
		207.7	17 (	150.7	
MEAN			63.6		
SD	NA		26.05		
N	0	1	4	6	
Period: Wee					
MEAN	29.9	NA	103.4	47.3	
SD	18.10	NA	NA	27.00	
N	2	0	1	4	
Period: We	ek 26				
MEAN		38.7	57.1	86.8	
SD	7/ 20	37.66	NA:	30.36	

<sup>\*-</sup>Significant Difference from Control P < .05

#### SUMMARY OF HEMATOLOGICAL TESTS TEST: Erythrocytes

STUDY ID: 097 STUDY NO: 097 SEX: MALE

ABBR: RBC						UNITS: 10^6/cmm
	ANALYSIS OF	VARIANCE FO	LLOWED BY D	UNNETT'S PR	DCEDURE	
	GROUP(s):		0.1	2.0	6.0	mg base/kg/day
	Period: W	eek -3				
	MEAN	6.14	6.35	6.56	6.43	
	SD	0.438	0.309	0.429	0.541	
		8				
	Period: W	eek -1				
	MEAN	6.31	6.29	6.33	6.53	
	SD	0.636	0.268	0.597	0.352	
	N	8	8	8	8	
	Period: W	eek 2				
	MEAN	6.12	6.25	6.42	6.24	
	SD	6.12 0.590	0.474	0.505	0.447	
	н	8	8	8	8	
	Period: We	eek 4				
		6.27				
	SD	0.398	0.257	0.506	0.429	
	N	8	8	8	8	
	Period: We	ek 8				
	MEAN SD	6.19	6.46	6.32	6.35	
	SD N	0.198	0.483	0.571	0.433	
	N	8	8	8	8	
	Period: We	ek 13				
	MEAN	6.34	6.64	6.28	6.11	
	SD	0.450			0.795	
	N	8	8	8	8	
		ek 18				
	MEAN	6.91	6.63	7.60	6.72	
	SD	0.462	0.209	0.805	0.658	
	N	4	4	4	4	
	Period: We	ek 26				
	MEAN					
	SD	0.261	0.598	0.499	0.312	
	4.6					

<sup>\*-</sup>Significant Difference from Control P < .05

#### SUMMARY OF HEMATOLOGICAL TESTS TEST: Erythrocytes

STUDY NO: 097

SEX: FEMALE

ABBR: RBC	ANALYSIS OF	UNITS: 10^6/cm				
	GROUP(s):	0				mg base/kg/day
	Period: We				4 80	
	MEAN	6.40	6.54	6.49 0.367	6.35	
	SD		0.404			
	N	8	8	8	8	
	Period: We	ek -1				
	MEAN		6.37	6.53	6.12	
	SD	0.391	0.305	0.443	0.508	
	N	8	8	8	8	
	m 1.4 H	.1. 0				
	Period: We	ex 2		4 94		
	MEAN	0.38	6.36	6.36	5.84*	
	SD			0.411		
	N	8	8	8	8	
	Period: We	ek 4				
	MEAN	6.31	6.39	5.79*	5.28*	
	SD	0.372	0.227	0.380	0.471	
	N	8		8	8	
	Period: We	- L 0				
			4 10	4 24	6 20	
	SD	0.43	0.40	6.26 0.484	0.20	
	N N	0.413	0.435	8	0.328	
		0	0	0	0	
`	Period: Wee					
	MEAN	6.59	6.75	6.57	6.17	
	SD	0.322	0.457		0.477	
• •	N	8	8	8	8	
	Period: Wee	k 18				
		-	7.06	6.86	6 10	
				0.857		
	N	4	4	4	4	
	Period: Wee					
	MEAN	7.07	6.69	7.03 0.522	6.95	
	SD	0.298	0.810	0.522	0.681	

<sup>\*-</sup>Significant Difference from Control P < .05

## SUMMARY OF HEMATOLOGICAL TESTS TEST: Hemoglobin

STUDY 10: 097 STUDY NO: 097 SEX: MALE

ABBR: THGB						UNITS: g/dL
	ANALYSIS OF	VARIANCE FOL	LOWED BY DU	NNETT'S PRO	CEDURE	
			• • • • • • • • • • • • • • • • • • • •			
	GROUP(s):	0	0.1	2.0	6.0	mg_base/kg/day
					• • • • • • • • • • • • • • • • • • • •	
	Period: We					
	MEAN	15.0	15.3	15.6	15.7	
	<b>SO</b>	1.22	0.97	0.74	1.03	
	N	8	8	8	8	
	Period: Wee	ek -1				
	MEAN	15.4 1.60	15.3	15.1	16.1	
	SD	1.60	0.80	1,17	0.81	
	N	8	8	8	8	
	Period: Wee					
	MEAN					
	SD	1.57	1.46	1.08	1.30	
	N	8	8	8	8	
	Period: Wee	k 4				
	MEAN	15.5	15.5	14.0*	13.5*	
	SD	15.5 0.97	0.82	1.12	1.36	
	N	8	8	8	8	
	Period: Wee	L R				
	MEAN		16.7	15 7	15 7	
	N	0.72	8	8	8	
	N	0	0	0	0	
*	Period: Wee	k 13				
	MEAN	15.8 1.30	16.4	15.2	14.9	
	SD	1.30	1.45	1.50	1.68	
	N	8	8	8	8	
	Period: Wee	k 18				
	MEAN		16.4	17.9	16.0	
			0.43	1.57	2.01	
	N	1.20	4	4	4	
	Period: Wee					
	MEAN		17.1	17.9	17.7	
	SO			1.46		
	N	4	4	4	4	

<sup>\*-</sup>Significant Difference from Control P < .05

# SUMMARY OF HEMATOLOGICAL TESTS TEST: Hemoglobin

STUDY ID: 097 STUDY NO: 097 SEX: FEMALE

ABBR: THGB						UNITS: g/dL	
	GROUP(s):		0.1	2.0	6.0	mg base/kg/day	
	Period: We						
			15.7	15.6	15.8		
	SD	0.95	0.90	0.86	0.62		
	N	8	8	8	8		
	Period: We	ab1					
	MEAN	45 E	15 7	16.0	45 7		
	SD	0.0%	12.3	16.0 1.24	13.3		
	N	8	8	8	8		
	М	0	0	0	0		
	Period: Wee						
	MEAN	15.7	15.3	15.6	14.7		
	SD	0.73	1.16	1.06	0.88		
		8	8	8	8		
	Period: Wee	ek 4					
	MEAN	15.6	15.6	14.4*	13.1*		
	SD	0.88	0.66	1.13	1.09		
	N	8	8	8	8		
	Period: Wee	k 8					
			16.3	15.9	15.4		
	SD	1.45		1.47	1.05		
	N	8	8	8	8		
**	Period: Wee	k 13					
	MEAN	16.5	16.7	16.0	15.4		
	SD	0.87	1.05	16.0 1.53	1.28		
	N	8	8	8	8		
	Period: Wee	k 18					
			17.5	17.2	15.5		
	SD	0.93	0.73	2 32	2.38		
	N	4	4	4	4		
	Period: Wee	k 26					
	MEAN		16.5	17.4	17 4		
	The Carl	17.0	10.5	17.47	17 4.7		

1.81

1.23

1.71

SD

1.18

# SUMMARY OF HEMATOLOGICAL TESTS TEST: Hematocrit

STUDY ID: 097 STUDY NO: 097 ABBR: HCT

SEX: MALE

UNITS: %

ANALYSIS	OF	VARIANCE	FOL! OWED	RY	DUNNETT'S	PROCEDURE	

ADDK. HOT	ANALYSIS OF	VARIANCE FOI	LOWED BY DE	INNETT'S PP	CENTIDE	0111101 74			
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day			
	Period: We	Period: Week -3							
	MEAN	43.9	44.9	45.8	45.5				
	SD	3.16	2.74	2.57	2.71				
	N	8	8	8	8				
	Period: We	ek -1							
	MEAN	44.7	44.2	43.9	45.9				
	SD	4.10	2.23	3.38	2.30				
	N	8	8	8	8				
	Period: We	ek 2							
	MEAN	43.1	43.6	44.3	44.0				
	SD	3.81	3.75	3.10	3.32				
	N	8	8	8	8				
	Period: We								
	MEAN								
	SD	2.54	2.10	3.23	3.30				
	N	8	8	8	8				
		Period: Week 8							
		43.3							
	SD	1.33	3.14	3.48	2.99				
	N	8	8	8	8				
*	Period: Wee								
	MEAN	44.9	46.4	43.8	42.2				
	SD	3.37	4.15	4.16	4.08				
	N	8	8	8	8				
	Period: Wee								
		48.1							
				4.14					
	N	4	4	4	4				
	Period: Wee								
		50.6							
,	SD		4.34	3.22	2.46				
	3.5								



#### SUMMARY OF HEMATOLOGICAL TESTS TEST: Hematocrit

STUDY ID: 097						SEX: FEMALE		
STUDY NO: 097 ABBR: HCT	ANALYSIS OF VARIANCE FOLLOWED BY DUNNETT'S PROCEDURE							
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day		
	Period: Wee	k -3						
	MEAN		45.9	45.7	46 N			
	SD	2.59	2.52	2.83	1.40			
	N	8	8	8	8			
	Period: Wee	k -1						
	MEAN	44.9	44.4	46.0	43.9			
	SD	2.75	2.07		4.32			
	N	8	8	8	8			
	Period: Wee							
	MEAN	44.8	43.9	44.7	41.9			
	SD	2.30	2.72	3.19	2.45			
	N	8	8	8	8			
	Period: Wee	k 4						
	MEAN	44.5	44.3	42.1	38.8*			
	SD	2.51	1.73	2.69	2.79			
	N	8	8	8	8			
	Period: Wee	k 8						
	MEAN	44.4	44.8	44.5	44.1			
	SD	2.47	2.83	3.95	2.89			
	N	8	8	8	8			
•	Period: Wee							
	MEAN	46.2	47.2	46.0	44.2			
	SD		3.41	4.68	3.36			
	N	8	8	8	8	77		
	Period: Wee							
	MEAN	49.4	49.0	48.2	44.8			
	SD	2.62	1.75	7.04	6.32			
	N	4	4	4	4			

Period: Week 26

MEAN

SD

N

49.9

3.25

4

48.5

3.68

46.1

5.24

4

49.0

4.19



#### SUMMARY OF HEMATOLOGICAL TESTS TEST: Mean Corpuscular Volume

STUDY ID: 097						SEX: MALE		
STUDY NO: 097 ABBR: MCV						UNITS: fL		
7.00(1.10)	ANALYSIS OF VARIANCE FOLLOWED BY DUNNETT'S PROCEDURE							
*****	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day		
	Period: Wee	ek -3						
	MEAN	71.5	70.8	69.9	70.9			
	SD	1.06	2.22	3.05	3.00			
	N	8	8	8	8			
	Period: Wee	ek -1						
	MEAN	70.9	70.2	69.4	70.4			
	SD	1.05	1.88	2.90	2.81			
	N	8	8	8	8			
	Period: Wee	ek 2						
	MEAN	70.6	69.8	69.2	70.5			
	SD		1.95		3.29			
	N	8	8	8	8			
	Period: Wee	ek 4						
	MEAN	70.6	69.8	71.8	73.1			
	SD	1.09	1.69	2.91	3.32			
	N	8	8	8	8			
	Period: Wee	k 8						
	MEAN		69.7	70.7	69.3			
	SD	1.03	1.61	2.64	2.96			
	N	8	8	8	8			
	Period: Wee							
	MEAN	70.9	70.0	69.8	69.5			
	SD	1.24		2.80	4-41			
	N	8	8	8	8			
	Period: Wee	k 18						
	MEAN	69.6	69.1	67.4	67.9			
	SD	0.73	2.10	1.77	4.99			
	N	4	4	4	4			
	Period: Wee	k 26						

69.7

0.88

MEAN

SD N 69.0 65.9

2.57

1.75

65.6

3.39

#### SUMMARY OF HEMATOLOGICAL TESTS TEST: Mean Corpuscular Volume

STUDY ID: 097 STUDY NO: 097 ABBR: MCV SEX: FEMALE

UNITS: fL

 GROUP(s):		) 	0.1	2.0	6.	0 mg	base/kg/day	
GROUP(s):	(	)	0.1	2.0	6.	0 mg	base/kg/day	
ANALYSIS OF	VARIANCE	FOLLOWER	BY	DUNNETT'S	PROCEDURE			

GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
 Period:	Week -3				
MEAN	71.6	70.3	70.5	72.5	
SD	1.29	2.16	1.67	2.60	
N	8	8	8	8	
Period:	Week -1				
MEAN	70.6	69.7	70.4	71.8	
SD	1.14	2.08	1.41	2.58	
N	8	8	8	8	
Period:	Week 2				
MEAN	70.1	69.4	70.3	71.7	
SD	1.80	1.92	1.64	2.43	
N	8	8	8	8	
Period:	Week 4				
MEAN	70.5	69.4	72.7	73.8*	
SD	1.56	1.66	2.00	3.05	
N	8	8	8	8	
Period:					
MEAN	69.9		71.1	71.6	
SD	1.34	2.13	1.95	2.57	
N	8	8	8	8	
	Week 13				
MEAN	70.2	69.9	69.9	71.8	
SD	1.18	2.48	2.24	3.59	
N	8	8	8	8	***
	Week 18				
MEAN	70.2	69.4	70.1	73.7*	
SD	1.25	1.33	1.64	1.92	
N	4	4	4	4	
-5	11-1-24				
	Week 26			-	
MEAN	70.5	68.9	69.0		
SD	1.83	1.51	1.32	1.48	

<sup>\*-</sup>Significant Difference from Control P < .05

# SUMMARY OF HEMATOLOGICAL TESTS TEST: Mean Corpuscular Hemoglobin

STUDY ID: 097						SEX: MALE
STUDY NO: 097 ABBR: TMCH						UNITS: pg
	ANALYSIS OF	VARIANCE FO	LOWED BY DU	INNETT'S PRO	OCEDURE	
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Pariod: Up	ok -3				
	MEAN	24.4	24.1	23.8	24.5	
	SD	0.42	0.70	1.05	1.15	
	MEAN SD N	8	8	8	8	
	Period: Wee	ek -1				
	MEAN	24.4	24.3	24.0	25.0	
	SD	0.40	0.59	1.01	1.08	
	N	8	0.59	8	8	
	Period: Wee	ek 2				
	MEAN	24.4	24.3	24.2	24.9	
	SD	0.62	0.64	0.91	0.95	
	N	8	0.64	8	8	
	Period: Wee	k 4				
	MEAN	24.7	24.5	24.5	24.8	
	SD	0.48	0.65	0.77	1.11	
	N	0.48	8	8	8	
	Period: Wee	k 8				
	MEAN	25.4	25.3	25.0	24.5	
	SD	1.05	0.87	1.55	1.04	
	SD N	8	8	8	8	
•	Period: Wee	k 13				
	MEAN	24.9	24.8	24.2	24.2	
	SD	0.49	0.73	1.02	1.38	
	N	8	8	8	8	
	Period: Wee	k 18				
	MEAN					
	SD	0.51	0.61	0.87	1.58	
	N	4	4	4	4	
	Period: Wee	k 26				
	MEAN	24.6				
	SD	0.59	0.74	0.91	1.31	
	8.7	1		1	1	

SD N



SUMMARY OF HEMATOLOGICAL TESTS TEST: Mean Corpuscular Hemoglobin

STUDY ID: 097 STUDY NO: 097 ABBR: TMCH SEX: FEMALE

UNITS: pg

ANALYSIS OF VARIANCE	FOLLOWED	BY	DUNNETT'S	PROCEDURE
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	ANALYSIS OF	VARIANCE FOR	LOWED BY DU	JNNETT'S PRO	CEDURE	
	GROUP(s):	0	0.1	2.0		mg base/kg/day
********	Period: We	ek -3				
		24.5	24.1	24 1	24 0	
	SD	0.57	1 05	0.76	1.05	
	N	8	8	8	8	
	N	0		0	•	
	Period: We	ek -1				
	MEAN	24.3	24.0	24.5	25.0	
	SD	0.38	1.00	0.57	0.86	
	N	8	8	8	8	
	Period: We			at 12		
	MEAN	24.6	24.4	24.5	25.1	
	<b>S</b> 0	0.54	1.17	0.74	1.02	
	N	8	8	8	8	
	Period: We	ek 4				
	MEAN	24.7	24.4	24.9	24.9	
	SD	24.7	0.84	0.77	1.04	
	N	8	8	8	8	
	Period: We	ak 8				
	MEAN	25 7	25.2	25 /	25.0	
	SD	1.21	1 //	1 1/	0.75	
	N	8	8	8	8	
,	N	•	٥	٥	٥	
4	Period: Wee	ek 13				
	MEAN	25.1	24.7	24.4	24.9	
	SD	0.46	0.89	0.98	0.98	
	N	8	8	8	8	10)
	Period: Wee	ak 18				
	MEAN		2/ 8	25 0	25 5	
	SD	0.47	0.41	0.50	0.71	
	N	4	4	4		
	п	*	4	4	4	
	Period: Wee					
	MEAN	25.1				
	SD			0.54	0.45	
	M	,	,			

## SUMMARY OF HEMATOLOGICAL TESTS TEST: Mean Copuscular Hemo. Conc.

STUDY ID: 097 STUDY NO: 097

SEX: MALE

ABBR: TMCHC						UNITS: g/dL
	ANALYSIS OF	VARIANCE FO	LLOWED BY DU	JNNETT'S PRO	CEDURE	3,72
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: We	ek -3	•••••••			
	MEAN	34.1	34.1	34.0	34.6	
	SD	0.54	0.64	0.41	0.50	
	N	8	8	8	8	
	Period: Wee	al 4				
			2/ /	77. 5	75.0	
	MEAN			34.5		
	SD	0.51			0.30	
	N	8	8	8	8	
	Period: Wee	ek 2				
	MEAN	34.6	34.8	35.0	35.2	
	SD		0.64	0.74	0.70	
	N	8	8	8	8	
	Period: Wee	ek 4				
	MEAN	35.0	35.1	34.1*	34.0*	
	SD	0.34	0.38	0.64	0.85	
	N	8	8	8	8	
	Period: Wee	ν R				
	MEAN	36.0	36 3	35.3	75 7	
	SD	1 22	1 22	1.59	1 57	
	N	8	8	8	8	
`.	Period: Wee	1. 47				
			75 /	7/ /	7/ 0	
	MEAN	0.43	33.4	34.0		
	SD N	0.43	0.28	0.65	0.60	.5
	N	٥	8	8	8	
	Period: Wee					
	MEAN					
	SD	0.39			0.77	
	N	4	4	4	4	
	Period: Wee	k 26				
		35.3	35.6	35.9	36.2	
	SD	0.43	0.42	0.67	0.25	
	N					

<sup>\*-</sup>Significant Oifference from Control P < .05



## SUMMARY OF HEMATOLOGICAL TESTS TEST: Mean Copuscular Hemo. Conc.

STUDY ID: 097 STUDY NO: 097 SEX: FEMALE

UNITS: q/dL

ABBR: TMCHC	UNITS: g/dL ANALYSIS OF VARIANCE FOLLOWED BY DUNNETT'S PROCEDURE							
					6.0	mg base/kg/day		
		ek -3						
	MEAN	34.2	34.2	34.2	34.4			
	SD	0.33	0.64	0.63	0.68			
	MEAN SD N	8	8	8	8			
	Period: We	ek -1						
	MEAN	34.5	34.5	34.7	34.9			
	SD	0.71	0.61	0.33	0.72			
	N	8	8	8	8			
	Period: We	ek 2						
	MEAN	35.1	35.0	34.9	35.0			
	SD	0.66	0.65	0.60	0.47			
	N	8	8	0.60	. 8			
	Period: We	ak /						
	MEAN	35 1	35 1	3/ 2	33 R*			
	MEAN SD	0.60	0.61	0.69	0.87			
	N	8	8	8	8			
	Period: We	ek 8						
	MEAN	36.2	36.4	35.7	34.9			
	SD	1.58	1.23	1.39	1.15			
	N	1.58	8	8	8			
	Period: Wed	ek 13						
	MFAN	35.7	35.4	34.9	34.7*			
	SD	0.43	1.04	0.54	0.89			
		8	8		8			
	Period: Wee	ek 18						
	MEAN		35.7	35.7	34.6			
		0.08						
	N	4	4	4	4			
	Period: Wee	ek 26						
	MEAN	35.6	35.8	35.9	35.5			
	MEAN SD	0.36	0.39	0.28	0.55			
		4						

<sup>\*-</sup>Significant Difference from Control P < .05



## SUMMARY OF HEMATOLOGICAL TESTS TEST: Reticulocyte Count

STUDY ID: 097						SEX: MALE
STUDY NO: 097 ABBR: RETICS						UNITS: % RBCs
	ANALYSIS OF	VARIANCE FOL	LOWED BY DU	INNETT'S PR	OCEDURE	
	GROUP(s):					mg base/kg/day
	Period: We					
	MEAN		0 /	0 5	0.7	
		0.4	0.4	0.5	0.3	
	SD	8	0.40	0.34	0.15	
	N	8	8	8	8	
	Period: We	ek -1				
	MEAN	0.2	0.1	0.1	0.1	
		0.16				
	N	8		8		
	partada Ha	ala 3				
	Period: We MEAN	ek 2	0.3	0 /	0.3	
		0.20				
	N	8	8	8	8	
	Period: We	ek 4				
	MEAN	0.3	0.1 0.21	0.6	1.1*	
	SD	0.22	0.21	0.18	0.48	
	N	8	8	8		
	Period: We	a				
		0.2	0.3	0.7	0.9*	
	MEAN SD	0.29		0.24	0.71	
	N	8	8	8		
	N	0	0	0	0	
	Period: Wee					
	MEAN	0.3	0.3	0.8*	1.2*	
	SD	0.18	0.35	0.34	0.39	
	N	8	8	8	8	
	Period: We	ek 18				
		0.5	0.6	0.6	0.8	
	SD	0.17		0.13		
	N	4	4	4	4	
		W				
	Period: We	ek 26				
	MEAN		0.4			
	SD	0.15	0.29	0.35		
	M	/		/	/	

4

## SUMMARY OF HEMATOLOGICAL TESTS TEST: Reticulocyte Count

STUDY ID: 097 STUDY NO: 097 ABBR: RETICS

SEX: FEMALE

UNITS: % RBCs

ANALYSIS OF	VARIANCE	FOLLOWED	BY	DUNNETT'S	PROCEDURE
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ADDK. KLIICS								
	ANALYSIS OF	VARIANCE FOL	LOWED BY DU	NNETT'S PRO	CEDURE			
	GROUP(s):		0.1	2.0	6.0	mg base/kg/day		
	Period: We	Period: Week -3						
	MEAN		0.3	0.2	0.4			
	SD	0.3	0.09	0.24	0.25			
	N	8	8	8	8			
	Period: We							
	MEAN	0.1	D.1	0.1	0.2			
	SD	0.14	0.10	0.05	0.18			
	N	8	8	8	8			
	Period: We	ek 2						
	MEAN	0.2	0.3	0.3	0.5			
	SD	0.19	0.21	0.23	0.43			
	N	8	8	8	8			
	Period: We	ek 4						
	MEAN	0.2	0.1	0.7*	0.7*			
	SD	0.15	0.16	0.37	0.42			
	N	8	8	8	8			
	Period: Wee	ek 8						
	MEAN	0.1	0.2	0.8*	0.9*			
	SD	0.11	0.19	0.43	0.40			
	N	8	8	8	8			
*	Period: Wee							
	MEAN	0.4	0.3	0.6	1.3*			
	SD	0.18	0.16	0.36	0.34			
	N	8	8	8	8			
	Period: Wee	ek 18						
	MEAN	0.4	0.3	0.5	0.6			
	SD	D.29	0.15	0.41	0.46			
	N	4	4	4	4			
	Period: Wee	ek 26						
	MEAN	0.6	0.4	0.2	0.2			
	SD	D.19	0.38	0.2 0.22	0.06			
	N	4	4	4	4			



#### SUMMARY OF HEMATOLOGICAL TESTS TEST: Nucleated Red Cells

STUDY ID: 097 STUDY NO: 097 SEX: MALE

UNITS: COUNT

ABBR: NRBC	ANALYSIS OF \	ANALYSIS OF VARIANCE FOLLOWED BY DUNNETT'S PROCEDURE							
****	GROUP(s):		0.1	2.0	6.0	mg base/kg/day			
	Period: Wee	k -3							
	MEAN	0	0	0	0				
	SD	0.4	0.4	0.7	0.4				
	N	8	8	8	8				
	Period: Wee	k -1							
	MEAN	0	0	0	0				
	SD	0.0	0.0	0.4	0.0				
	N	8	8	8	8				
	Period: Wee								
	MEAN	0	0	0	1				
	SD	0.5	0.5	0.4	1.6				
	N	8	8	8	8				
	Period: Wee	k 4							
	MEAN	0	1	1	5*				
	SD	0.4	1.4	0.8	3.0				
	N	8	8	8	8				
	Period: Wee								
	MEAN	0.7	1	1	2				
	SD	0.7	1.2	0.8	3.1				
	N	8	8	8	8				
•	Period: Wee								
	MEAN		1	1	1				
		0.8	2.4	0.5	1.4				
	N	8	8	8	8				
	Period: Wee								
	MEAN	1	1	1	0				
	SD	2.0	1.5	1.0	0.0				
	N	4	4	4	4				
	Period: Wee								
	MEAN	2	0	4	1				
	SD	2.4	0.5	5.1	0.6				



#### SUMMARY OF HEMATOLOGICAL TESTS TEST: Nucleated Red Cells

STUDY 10: 097 STUDY NO: 097 ABBR: NRBC

SEX: FEMALE

UNITS: COUNT

ANALYSIS	OF	VARIANCE	FOLLOWED	BY	DUNNETT'S	PROCEDURE

ADDR. HADO	ANALYSIS OF V	ARIANCE FOL	LOWED BY DU	NNETT'S PRO	CEDURE	
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: Wee	k -3				
		0	0	0	0	
	SD	0.0	0.4	0.5	0.5	
	N	8	8	8	8	
		_				
	Period: Wee	k -1				
	MEAN	0	0	0	0	
	SO	0.4	0.0	0.7	0.0	
	N	8	8	8	8	
	Period: Wee	k 2				
	MEAN	0	0	1	1	
	SD	0.0	0.0	1.4	1.1	
	N	8	8	8	8	
	Period: Wee	k 4				
	MEAN	0	0	2	5*	
	SD	0.4	1.1	1.7	3.7	
	N	8	8	8	8	
	Period: Wee	k 8				
	MEAN	0	0	1		
	SD	0.7	0.7	1.1	1.8	
	N	8	8	8	8	
*	Period: Wee					
	MEAN	1	0	0	2	
	SD	0.9	0.4	0.4	2.9	
	N	8	8	8	8	
	Period: Weel					
	MEAN	1	1	0	0	
	SD	0.6	1.3	0.0	0.5	
	N	4	4	4	4	
	Period: Week	k 26				
	MEAN	0	0	1	0	
	PIEAR	0	0	4 0	0	

0.5 1.0

0.0

0.0

## SUMMARY OF HEMATOLOGICAL TESTS TEST: Heinz Bodies

STUDY ID: 097 STUDY NO: 097

SEX: MALE

UNITS: %

				ANALVETC	OF	MADIANCE	FOLL OUED	DV	DUNNETT/C	DOCCER	2011
ABBR:	HB										
31001	110.	071									

ABBK: NB		WARTANIOE FOR	LOUED DV DI	NINETTIO 550	A PRINCE	ORITS. A
	ANALYSIS OF	VAKIANCE FUL	TOMED BY DO	JNNEIL'S PRO	CEDURE	
	GROUP(s):	0		2.0	6.0	mg base/kg/day
	Period: We	ek -3				
	MEAN	0.2	0.0	0.2	0.0	
	SD	0.26				
	N	8	8	8	8	
	Period: We	ek -1				
	MEAN	0.0	0.0	0.0	0.0	
	SO	0.04	0.04	0.05	0.05	
	N	8	8	8	8	
	Period: Wee	ek 2				
	MEAN	0.0	0.0	0.1	0.0	
	SD	0.00	0.04	0.14	0.05	
	N	8	8	8	8	
	Period: Wee	ek 4				
	MEAN	0.0	0.0	0.1	0.0	
	SD	0.00	0.07	0.12	0.11	
	N	8	8	8	8	
	Period: Wee					
	MEAN	0.1	0.1	0.1	0.1	
	SD	0.11	0.08	0.08	0.11	
	N	8	8	8	8	
•	Period: Wee					
	MEAN	0.3	0.4	0.1	0.1	•
	SD	0.37	0.35	0.10	0.18	
	N	8	8	8	8	
	Period: Wee					
		0.0	0.0	0.0	0.0	
	SD	0.00	0.05			
	N	4	4	4	4	
	Period: Wee					
	MEAN	0.0	0.0		0.0	
	SD	0.00	0.05	0.00	0.00	
	**					



#### SUMMARY OF HEMATOLOGICAL TESTS TEST: Heinz Bodies

STUDY ID: 097

SEX: FEMALE

STUDY ID: 097						SEX: FEMALE		
STUDY NO: 097 ABBR: HB						UNITS: %		
ABBK: NB	ANALYSIS OF VARIANCE FOLLOWED BY DUNNETT'S PROCEDURE							
	GROUP(s):		0.1	2.0	6.0	mg base/kg/day		
	Period: Wee							
	MEAN		0.2	0.1	0.2			
		0.29						
	N	8	8	8	8			
	Period: Wee	Jr _ 4						
	MEAN	0.0	0.1	0.0	0.0			
	SD	0.05	0.11	0.05	0.04			
	N	8	8	8	8			
	N		0	0	0			
	Period: Wee							
		0.0	0.1	0.0	0.1			
	SD	0.00	0.14	0.00	0.19			
	N	8	8	8	8			
	Period: Wee	k 4						
	MEAN	0.0	0.0	0.0	0.0			
	SD		0.00	0.05	0.07			
	N	8	8	8	8			
	Period: Wee	k 8						
			0.1	0.2	0.1			
	SD	0.15	0.11	0.29	0.05			
	N	8	8	8	8			
•	Period: Wee	L 13						
		0.1	0.3	0.2	0.2			
	SD	0.12	0.27	0.21	0.31			
	N	8	8	8	8			
	Period: Wee	L 19						
		0.1	0.1	0.0	0.0			
				0.00	0.00			
	N	4	4	4	4			
	Period: Wee	b 26						
	MEAN	0.0	0.1	0.0	0.0			
	SD	0.00		0.05	0.00			
	SU	0.00	0.10	0.05	0.00			



## SUMMARY OF HEMATOLOGICAL TESTS TEST: % Methemoglobin

STUDY 10: 097

SEX: MALE

CTUDY NO. 007							
STUDY NO: 097							UNITS: %
ABBR: %METHGB	ANALYSIS OF	VADIANCE FOI	LOUED BY N	NAME TA LO DOC	CEDUDE		UNIIS: /
	ANALYSIS OF	VARIANCE POL	LOWED BY DE	NNEIL'S PRU	CEDUKE		
	GROUP(s):	0	0.1	2.0	6.0	me	base/kg/day
	OKOOF (37:					6	
	Period: Wee	ek -3					
	MEAN	1.9	2.1	2.0 0.75	1.8		
	SD	0.91	1.03	0.75	0.47		
	N	8	8	8	8		
	Period: Wee	ek -1					
	MEAN	1.3	1.4	1.6	1.5		
	SD	0.44	0.63	0.70	0.68		
	N	8	8	8	8		
	Period: Wee	L 2					
	MEAN	0.0	1.2	17 0+	14 9*		
	SD			3.58			
	N N	8	8	3.30	8		
	N	٥	٥	0	٥		
	Period: Wee						
	MEAN	0.9	1.1	14.8*	17.5*		
	SD	0.21	0.29				
	N	8	8	8	8		
	Period: Wee	k 8					
	MEAN	1.0	0.9	13.6*	18.8*		
	SD	0.30	0.16	4.25	4.75		
	N	8	8	8	8		
*	Period: Wee	k 13					
	MEAN	0.8	1.2	12.9*	17.8*		
	SD	0.24		3.96			
	N	8	8	8	8		
	Period: Wee	k 18					
	MEAN		0.7	0.8	3.8*		
		0.12					
	N	4	4	4	4		
	••	·			1,000		

Period: Week 26

MEAN SD

N

0.7

0.17

4

0.9

0.06

4

0.8

4

0.14

0.9

0.13

4



# SUMMARY OF HEMATOLOGICAL TESTS TEST: % Methemoglobin

STUDY ID: 097 STUDY NO: 097

SEX: FEMALE

ABBR: %METHGB	ANALYSIS OF	UNITS: % ANALYSIS OF VARIANCE FOLLOWED BY DUNNETT'S PROCEDURE							
**************	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day			
	Period: We								
	MEAN	1.8	2.1	2.0	1.4				
	SD	0.73	1.19	1.25	0.41				
	N	8	8	8	8				
	Period: We	ek -1							
		1.4	1.7	1.4	1.1				
	SD	0.77	1.24	0.78	0.41				
	N	8	8	8	8				
	Period: Wee	ek 2							
	MEAN	1.0	1 4	11.7*	2/, 0*				
	SD	0.39	0.72	4.82	6.43				
	N	8	8	8	8				
	N	0	0	0	٥				
	Period: Wee								
	MEAN	1.1		14.7*					
	SD	0.46							
	N	8	8	8	8				
	Period: Wee	ek 8							
	MEAN	0.8	1.1	12.5*	23.6*				
	SD	0.08	0.26	2.29	4.26				
	N-	8	8	8	8				
***	Period: Wee	k 13							
	MEAN		1.7	12.9*	24.8*				
	SD	0.20	1.21						
	N	8	8	8	8				
	Period: Wee	k 18							
	MEAN	0.7	0.7	1.0	4.2*				
	SD	0.32		0.22	1.95				
	N	4	4	4	4				
				*	*				
	Period: Wee								
	MEAN		1.0		1.1				
	SD	0.22	0.10	0.10	0.15				
	M	/	,	,	,				



#### SUMMARY OF HEMATOLOGICAL TESTS TEST: Platelets

STUDY ID: 097 STUDY NO: 097

ABBR: PLT

SEX: MALE

UNITS: 10^3/ccm

ANALYSIS OF VARIANCE FOLLOWED BY DUNK	ETT'S PROCEDURE
---------------------------------------	-----------------

MODEL - FEI						011110110 0700111
	ANALYSIS OF	VARIANCE FOR	LOWED BY DU	JNNETT'S PRO	DCEDURE	
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: We	ek -3				
	MEAN	356	387	416	371	
	SD		59.5	96.1	79.6	
	N	8	8	8	8	
	Period: We	ek -1				
	MEAN	298	336	360	316	
	SD	67.8	38.1	64.8	64.2	
	N	8	8	8	8	
	Period: We	ek 2				
	MEAN	246	278		98*	
	SD	56.9	53.5	60.0	15.4	
	N	8	8	8	8	
	Period: We					
	MEAN	256	287	113*	92*	
	SD	58.0	54.0	42.5	37.4	
	N	8	8	8	8	
	Period: Wee	ek 8				
	MEAN	240	266	159	217	
	SD	48.6	42.8	75.8	105.9	
	N	8	8	8	8	
**	Period: Wee	ek 13				
	MEAN	241	281	185	222	
	SD	47.7	32.9	91.9	150.0	
	N	8	8	8	8	
	Period: Wee	ek 18				
		260	315	343	314	
	SD	36.8	15.6		141.3	
	N	4	4	4	4	
	Period: Wee					
	MEAN	251		288		
	SD	39.2	26.6	82.2	25.5	
	**					



## SUMMARY OF HEMATOLOGICAL TESTS TEST: Platelets

STUDY ID: 097 STUDY NO: 097 SEX: FEMALE

UNITS: 10^3/ccm

ABBR: PLT	ANALYSIS OF	UNITS: 10 <sup>3</sup> /ccm				
***************************************	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: We	۲- ما				
	MEAN	Z71	358	716	70/	
	SD	101 1	330	340	370	
	N	8	97.3	70.2	86.7	
	N	0	٥	٥	٥	
	Period: We					
	MEAN	317	309	333	337	
	SD	76.2	114.0	49.0	74.2	
	N	8	8	8	8	
	Period: Wed	k 2				
	MEAN		276	155*	8/4	
	SD		54.0			
	N	8	8	8	8	
	Period: Wee	ds /				
	Period: wee	207	257	128*	4570	
	MEAN SD	297	40.3	126*	155*	
	N	33.0	60.2	42.6	92.6	
	N ·	٥	٥	8	8	
	Period: Wee	k 8				
	MEAN	287	258	210	213	
	SD	33.6	40.0		103.0	
	N	8	8	8	8	
~	Period: Wee	k 13				
	MEAN	303	264	262	244	
	SD	43.1		85.1		
	N	8	8	8	8	
	Period: Wee	k 18				
	MEAN	318	341	372	235	
	SD	42.6	81.7	74. 2	73 1	
	N	4	4	4	4	
	Period: Wee					
			345			
	SD		167.0	76.0	91.3	
					,	

<sup>\*-</sup>Significant Difference from Control P < .05

### SUMMARY OF HEMATOLOGICAL TESTS TEST: Prothrombin Time

STUDY ID: 097 STUDY NO: 097 SEX: MALE

STUDY NO: 097 ABBR: PT						UNITS: sec
ABBK: PI	ANALYSIS OF	VARIANCE FO	LLOWED BY DU	JNNETT'S PRO		
	GROUP(s):	0	0.1		6.0	mg base/kg/day
•	Period: We		*********			
	MEAN		7.3	7.3	7.3	
	SD		0.27	0.19		
	N	8	8	8	8	
	Period: We	ok -1				
		7.3	7.3	7.2	7.2	
	SD	0.37	0.33	0.12	0.12	
	N	8	8	8	0.12	
	,				_	
	Period: We					
	MEAN			7.2		
	SD	0.41				
	N	8	8	8	8	
	Period: Wee	ek 4				
	MEAN	7.2	7.2	6.9*	6.9*	
	SD	0.33	0.19	0.10	0.09	
	N	8	8	8	8	
	Period: Wee	k 8				
	MEAN		7.5	7.1	7.2	
	SD	0.17	0.30	0.13		
	N	8	8	8	8	
**	Period: Wee	L 13				
	MEAN	7.3	7.3	7.1	7.0	
	SD	0.30	0.27		0.10	
	N	8	8	8	8	
	Period: Wee	L 10				
	MEAN	7.2	7.4	7.4	7.1	
	SD	0.39		0.10	0.10	
	N	4	4	4	4	
	N	4	44	- 4	1.4	
	Period: Wee					
	MEAN		7.6		7.4	
	SD	0.53	0.32	0.10	0.08	
		,			,	



# SUMMARY OF HEMATOLOGICAL TESTS TEST: Prothrombin Time

STUDY ID: 097

SEX: FEMALE

0710V NO. 007	SEAS I FINE						
STUDY NO: 097 ABBR: PT						UNITS: sec	
ADDR - FI	ANALYSIS OF	VARIANCE FOR	LOWED BY DU	JNNETT'S PRO	CEDURE		
	00010/01			2.0	4.0	mg base/kg/day	
	GKOUP(S):		U. I	2.0	0.0	mg base/kg/day	
	Period: We	ek -3					
	MEAN	7.2	7.2	7.2	7.2		
	SD	0.16	0.20	0.18	0.17		
	N	8	8	8	8		
	Period: Wee	sk -1					
	MEAN	7.3	7.3	7.4	7.3		
	SD	0.14	0.23	0.20	0.18		
	N	8	8	8	8		
	**				0		
	Period: Wee	ek 2					
	MEAN SD	7.3	7.4	7.2 0.19	7.1		
	SD	0.25		0.19	0.20		
	N	8	8	8	8		
	Period: Wee	k 4					
	MEAN	7.2	7.3	6.9*	6.9*		
	SD	0.17	0.18	0.09	0.19		
	N	8	8	8	8		
	Period: Wee	L 0					
	MEAN	7 2	7 3	7 2	7 3		
	SD	0.20	0.34	0.23	0.34		
	N	8	8	8	8		
	n	3	0	0	8		
*	Period: Wee	k 13					
	MEAN SD	7.3	7.3	7.1	7.1		
			0.24	0.17	0.20		
	· N	8	8	8	8		
	Period: Wee	k 18					
	MEAN	7.3	7.3	7.2	7.3		
	SD						
	N	4	4	. 4	4		
	Period: Wee	b 26					
		7.4	7 /	7 /	7.5		
	SD	0.28	0.09	0.15	0.25		
	30	0.20	0.00	0.15	0.23		



#### SUMMARY OF HEMATOLOGICAL TESTS TEST: Act. Partial Thrombo. Time

STUDY ID: 097 STUDY NO: 097

SEX: MALE

ABBR: APTT						UNITS: sec
_ 7 _	ANALYSIS OF	VARIANCE FOL	LOWED BY DL	INNETT'S PRO		
			0.4	2.0		
	GROUP(s):		0.1		6.0	mg base/kg/day
	Period: We					
•	MEAN	12.1	12.0	11.5	11.8	
	SD	0.49	1.04	0.35	0.48	
	N	8	8	0.35	8	
	Period: Wee	ek -1				
			11.5	11.3	11.5	
	SD	11.5 0.45	0.72	0.77	0.53	
		8	8	8	8	
				Ö		
	Period: Wee	ek 2				
	MEAN					
	SD	0.52	0.90	0.31	0.45	
	N	8	8	8	8	
	Period: Wee	ek 4				
	MEAN SD	10.6	10.8	10.5	11.2	
	SD	0.43	1.03	0.37	0.14	
	N	8	8	8	8	
	Period: Wee	k 8				
	MEAN	10.5	10.7	10.2	10.4	
		0.87				
	N	8	8	8	8	
*	Period: Wee	k 13				
	MEAN	10.6	10.6	10.4	10.9	
	MEAN SD	0.40	0.92	0.40	0.52	
	N	8	8	8	8	
	Period: Wee	k 18				
	MEAN	10.8	10.5	10.2	10.6	
	SD	0.34	0.26	0.26	0.19	
	N	4	4	4	4	
	Period: Wee	k 26				
	MEAN	10.8	11 1	10 4	10.6	
	SO	10.8	0.88	0 10	0.10	
	N			4		



### SUMMARY OF HEMATOLOGICAL TESTS TEST: Act. Partial Thrombo. Time

STUDY ID: 097 STUDY NO: 097 SEX: FEMALE

UNITS: sec

ABBR: APTT	ANALYSIS OF	ANALYSIS OF VARIANCE FOLLOWED BY DUNNETT'S PROCEDURE							
		0	0.1	2.0	6.0	mg base/kg/day			
	Period: We	ek -3							
	MEAN	12.0 0.60	11.9	11.6	11.9				
	SD	0.60	0.64	0.60	0.54				
	N	8	8	8	8				
	Period: We	ek -1							
	MEAN	12.2	11.8	11.4	12.0				
	SD	0.85	0.81	0.56	0.75				
	N	8	8	8	8				
	Period: We	ek 2							
	MEAN	11.4	11.2	10.9	11.2				
	SD	0.93	0.74	0.57	0.70				
	N	8	8	8	8				
	Period: We	ek 4							
	MEAN	11.0	10.7	10.8	11.7				
		0.77	0.41	0.74	0.63				
	N	8	8	8	8				
	Period: We								
		10.7	10.9	10.4	10.8				
	SD	0.49	0.47	0.58	0.59				
	N	8	8	8	8				
19	Period: Wee								
	MEAN	10.8	11.0	10.7	11.1				
		0.48							
	· N	8	8	8	8				
	Period: Wee								
	MEAN								
	SD	0.17	0.38	0.40	1.16				
	И	4	4	4	4				
	Period: Wee								
	MEAN	10.7 0.32	11.0	10.7	11.4				
	SD		0.52	0.70	0.81				
	N			4					

### SUMMARY OF HEMATOLOGICAL TESTS TEST: Leukocytes

STUDY ID: 097 STUDY NO: 097

SEX: MALE

ABBR: WBC						UNITS: 10 <sup>3</sup> /cmm
	ANALYSIS OF	VARIANCE FO	LLOWED BY DU	NNETT'S PRO	CEDURE	
***************************************		^				
	GROUP(s):			2.0	6.0	mg base/kg/day
	Period: Wee					
			9.5	9.2	8.5	
	SD	1.51	2.57	1.48	1.81	
	N	8	8	8	8	
	Period: Wee	sk -1				
			10.2	8 8	9.6	
	SD	8.2 2.03	10.2 2.23	2.01	1.12	
		8	8	8	8	
	N.	Ü	0		0	
	Period: Wee	k 2				
	MEAN	9.0	10.0	10.6	8.9	
	SD	3.40		2.84	1.05	
	N	8	8	8	8	
	Period: Wee	k 4				
	MEAN	9.1 2.14	8.7	10.6	9.7	
	SD	2.14	1.82	1.44	2.08	
	N	8	8	8	8	
	Period: Wee	k 8				
	MEAN	8.3	9.0	10.0	11.3*	
	SD			1.45		
	N	8	8	8	8	
•	Period: Wee	k 13				
			8 7	11.4*	13.0*	
	MEAN SD	1.83	1.60	1.25	3.04	
•	N	8	8	8	8	
	Period: Wee	k 18				
	MEAN		9.0	7 4	0.5	
	SD			1.44		
	N	4	4	4	4	
	Period: Wee	k 26				
	MEAN	0.8	10.2	8.6	8 2	
	SD	1.56	0.79	8.6 1.13	0.53	
	N					

<sup>\*-</sup>Significant Difference from Control P < .05



# SUMMARY OF HEMATOLOGICAL TESTS TEST: Leukocytes

STUDY ID: 097 STUDY NO: 097 SEX: FEMALE

HNITS: 10^3/cmm

ABBR: WBC	ANALYSIS OF VARIANCE FOLLOWED BY DUNNETT'S PROCEDURE							
	GROUP(s):	0	0.1			mg base/kg/day		
	Period: We	ek -3						
	MEAN	8.2	8.4	7.8	8.5			
	MEAN SD	1.54	1.21	2.03	1.29			
	N	8		8	8			
	Period: We							
	MEAN	8.7	9.9	8.8	9.8			
	SD	2.39			2.54			
	N	8	8	8	8			
	Period: Wee	ek 2						
	MEAN	9.5	9.5	8.0	8.5			
	SD	3.06	1.89		1.82			
	N	8	8	8	8			
	Period: Wee							
	MEAN							
	SD	1.62		2.20				
	N	8	8	8	8			
	Period: Wee	L 8						
		7.6	8 7	10.3	10.2			
	SD	0.92	2 58	2 56	3.62			
	N	8		8	8			
		· ·	0	0,				
	Period: Wee	k 13				•		
	MEAN	8.4	8.1	11.2	13.6*			
	SD	2.27	1.57		5.57			
	N	8	8	8	8			
	Period: Wee	L 18						
	MEAN		8 4	8.9	10.6			
	SD	1.14						
	N	4	4	4	4			
	Period: Wee			2.2				
	MEAN	7.8	9.5	8.9	9.0			
	SD			3.19	1.16			
	N	4	4	4	4			

# SUMMARY OF HEMATOLOGICAL TESTS TEST: M. Neutrophils

STUDY ID: 097 STUDY NO: 097 ABBR: M. Neutrop SEX: MALE

UNITS: 10^3/cmm

ANALYSIS	OF	VARIANCE	FOLLOWED	BY	DUNNETT'S	PROCEDURE	

	ANALYSIS OF	VARIANCE FOL	LOWED BY DU	JNNETT'S PRO	CEDURE		
*****************	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/	day
	Period: We	ek -3					
	MEAN	4.8	5.4	5.5	4.9		
	SD	0.86	1.76	1.21	0.96		
	N	8	8	8	8		
	Period: We	ek -1					
	MEAN	5.2	6.6	5.4	5.9		
	SD	1.66	2.16	1.55	0.71		
	N	8	8	8	8		
	Period: Wee	ek 2					
	MEAN	5.8	6.2	7.0	5.5		
	SD	2.82	2.41	2.19	1.36		
	N	8	8	8	8		
	Period: Wee	ek 4					
	MEAN	6.1	4.7	6.8	6.2		
112	SD	1.56	1.35	1.31	1.90		
	N	8	8	8	8		
	Period: Wee	ek 8					
	MEAN	5.1	5.2	6.0	7.6*		
	SD	0.89	1.61	1.31	2.10		
	N	8	8	8	8		
~ ~	Period: Wee	ek 13					
	MEAN	5.1	5.1	7.7*	9.2*		
	SD	1.13	1.08	0.86	2.35		
	N	8	8	8	8		
	Period: Wee	k 18					
	MEAN	6.0	5.4	4.2	6.1		
	SD	1.10	1.34	1.26	0.86		
	N	4	4	4	4		
	Period: Wee						
	MEAN	6.4	7.0	5.5	5.0		
	SD	1.04	1.45	1.03	0.78		
	4.4						

# SUMMARY OF HEMATOLOGICAL TESTS TEST: M. Neutrophils

STUDY ID: 097 STUDY NO: 097

SEX: FEMALE

ABBR: M. Neutrop						UNITS: 10^3/cmm
	ANALYSIS OF	VARIANCE F	OLLOWED BY DU	JNNETT'S PRO	DCEDURE	
*****	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: We		*******			
	MEAN		4.9	4.3	4.9	
	SD	1.06	0.99	1.45	1.26	
	N	8		8	8	
	Period: Wee	ek -1				
	MEAN	5.8	6.3	5.0	6.8	
	SO	1.74	1.84	2.15	2.47	
	N	8	8	8	8	
	Period: Wee	ek 2				
	MEAN	6.4	5.9	4.8	5.4	
	SD	2.66	1.82	1.25	2.03	
	N	8		8		
	Period: Wee	ek 4				
	MEAN	4.5	5.0	5.4	5.3	
	SD		2.05	1.54	1.32	
	N	8	8	8	8	
	Period: Wee					
	MEAN	4.7	4.9	6.9	7.2	
	SD	0.50	1.98	2.53	3.60	
	N	8	8	8	8	
**	Period: Wee	k 13				
	MEAN	5.3	4.7	8.1	9.1*	
	SD	1.56	0.99	3.28	3.09	
	N	8	8	8	8	
	Period: Wee					
	MEAN		5.3			
	SD	0.71	2.36	2.13	4.55	
	N	4	4	4	4	
	Period: Wee	k 26				
	MEAN	4.8	6.2	5.7 2.27	5.3	
	SD	0.88	2.11	2.27	0.77	
	N		4	4	4	

# SUMMARY OF HEMATOLOGICAL TESTS TEST: I. Neutrophils

STUDY ID: 097

SEX: MALE

STUDY NO: 097 ABBR: I. Neutrop			LOUTE BY AL	Nu. 2-740		UNITS: 10^3/cmm
	ANALYSIS OF	VARIANCE FOL	TOMED BY DO			
	GROUP(s):	0	0.1		6.0	mg base/kg/day
	Period: We					
		0.1	0.1	0.1	0.1	
	SD	0.09		0.11	0.07	
	N	8	8	8	8	
	Period: We	ek -1				
	MEAN	0.2	0.2	0.2	0.1	
	SD	0.05	0.15	0.16	0.08	
	N	8	8	8	8	
	martada Ha	-l. 2				
	Period: Wee	ek 2	0.4	0 /	0.7	
	MEAN	0.21		0.29		
	SD				0.12	
	N	8	8	8	8	
	Period: Wee	ek 4				
	MEAN	0.4	0.4	0.7	0.5	
	SD	0.25	0.18	0.31	0.18	
	N	8	8	8	8	
	Period: Wee	ak 8				
		0.3	0.3	0.4	0.5	
	SD	0.12	0.11	0.30	0.21	
	N	8	8	8	8	
4.	Period: Wee	L 17				
	MEAN	0.3	0.2	0.3	0.4	
	SD	0.24	0.16	0.32	0.27	
		8	8	8	8	
	N	٥	8	0	٥	
	Period: Wee					
	MEAN	0.2	0.2	0.4	0.2	
	SD	0.14	0.15	0.25	0.06	
	N:	4	4	4	4	
	Period: Wee	k 26				
	MEAN	0.2	0.2	0.2	0.2	
	SD •	0.10		0.19	0.10	
	30 1	0.10	0.13	0.17	0.10	

#### SUMMARY OF HEMATOLOGICAL TESTS TEST: I. Neutrophils

STUDY ID: 097 STUDY NO: 097 SEX: FEMALE

INITE: 10^3/cmm

ABBR: I. Neutrop		UNITS: 10 <sup>3</sup> /cmm					
	ANALYSIS OF	VARIANCE FOL	LOWED BY DU	NNETT'S PRO	CEDURE		
,	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day	
	Period: Wee	ek -3	0.4	0.4	0.4		
		0.5	0.1	0.1	0.1		
	SD	1.2	0.09	0.06			
	N	8	8	8	8		
	Period: Wee						
	MEAN	0.1	0.1	0.2	0.1		
	SD	0.12	0.13	0.14	0.13		
	N	8	8	8	8		
	Period: Wee	k 2					
	MEAN	0.2	0.2	0.3	0.5		
	SD	0.15	0.17	0.3	0.43		
	N	8	8	8	8		
	N				0		
	Period: Wee	ek 4					
				0.5			
	SD		0.29	0.27			
	N	8	8	8	8		
	Period: Wee	k 8					
	MEAN	0.2	0.2	0.6*	0.3		
	SD	0.10	0.13		0.15		
	N	8	8	8	8		
	Period: Wee	b 13					
	MEAN	0.1	0.3	0.4	0.9		
	SD	0.10	0.5	0.40	1.46		
	N	8	8	8	8		
	N.	0	0	0	0		
	Period: Wee						
				0.3			
	SD			0.17			
	N	4	4	4	4		
	Period: Wee	k 26					
	MEAN	0.0	0.3	0.2	0.2		
	SD	0.05	0.25	0.26	0.10		

<sup>\*-</sup>Significant Difference from Control P < .05

# SUMMARY OF HEMATOLOGICAL TESTS TEST: Lymphocytes

STUDY ID: 097

SEX: MALE

STUDY NO: 097

STUDY NO: 097 ABBR: Lymphocyte	ANALYSIS OF	UNITS: 10 <sup>3</sup> /cmm				
	GROUP(s):		0.1	2.0	6.0	mg base/kg/day
	Period: We					
	MEAN	3.0	3.0	2.8	2.8	
	SD	0.62	1.08	0.62	0.76	
	N	8	8	8	8	
	.,			_		
	Period: Wee	ek -1				
	MEAN	2.3	2.6	2.6	2.7	
	SD	0.53		0.62	0.94	
	N	8	8	8	8	
	Period: Wee		2.5	0.7	0.7	
	MEAN	2.3	2.5	2.3 0.68	2.3	
	SD	0.53		0.68	0.70	
	N	٥	8	8	8	
	Period: Wee					
	MEAN	2.0	2.7	2.1	1.9	
	SD	0.76	0.69	0.81	0.55	
	N	8	8	8	8	
	Period: Wee	k 8				
	MEAN	2.4	2.5	2.5	1.9	
	SD	0.86		0.68	0.80	
	N	8	8	8	8	
*	Period: Wee	b 17				
	MEAN	2.1	2.4	2.2	1.9	
	SD	0.61		0.68	0.38	
	N	8	8	8	8	
	Period: Wee			2.0	2.0	
	MEAN	2.5	2.6	2.0	2.0	
	SD	0.71	0.59	0.33	0.78	
	N	4	4	4	4	
	Period: Wee	k 26				
	MEAN	2.6	2.1	2.1	2.3	
	SD	0.40	0.56	0.61	0.68	
	N	4	4	4	4	

# SUMMARY OF HEMATOLOGICAL TESTS TEST: Lymphocytes

STUDY ID: 097						SEX: FEMALE
STUDY NO: 097						40474
ABBR: Lymphocyte			10155 57 61			UNITS: 10 <sup>3</sup> /cmm
	ANALYSIS OF	VARIANCE FUL	LOWED BY DE	JNNETT'S PRO	DCEDUKE	
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: Wee	ek -3				
		2.2	2.9	2.8	2.6	
	SD		0.53	0.89	0.89	
	N	8	8	8	8	
	Period: Wee					
		2.2	2.9	3.0	2.1	
	SD	0.85	0.63	0.63	0.74	
	N	8	8	8	8	
	Period: Wee	k 2				
	MEAN	2.3	2.7	2.4	1.9	
	SD	0.57	0.71	0.70	0.42	
	N	8	8	8	8	
	Period: Wee	ok 4				
	MEAN		2.4	2.3	1.6	
		0.68		0.51	0.56	
	N	8	8	8	8	
	Period: Wee	L 9				
			2.0	2 0	1.8	
	SD	2.4 0.54	0.63	2.0 0.53	0.61	
	N	8	8	8	8	
•	Period: Wee		2.1			
		2.5			2.3	
	SD		0.88	0.24	1.25	
	N	8	8	8	8	
	Period: Wee					
	MEAN	2.6	2.5	2.1	2.0	
	SD	1.28		0.26	1.28	
	N	4	4	4	4	
	Period: Wee					
	MEAN	2.3	2.1	2.4	2.4	
		0.7/	0 17	0 50	0.00	

0.74

SD

0.52

0.43

0.82

4



# SUMMARY OF HEMATOLOGICAL TESTS TEST: Monocytes

STUDY ID: 097 STUDY NO: 097 SEX: MALE

UNITS: 10<sup>3</sup>/cmm

ABBR: Monocytes

M. 1	ANALYSIS OF	VARIANCE FOL	LOWED BY DU	JNNETT'S PR	OCEDURE	
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	n					
	Period: We	0.5	0.7	0 5	0.5	
	MEAN			0.5		
	SD	0.28		0.26	0.28	
	N	8	8	8	8	
	Period: We	ek -1				
	MEAN	0.4	0.8	0.5	0.5	
	SD	0.18	0.63	0.28	0.20	
	N	8	8	8	8	
	Period: Wee	ek 2				
	MEAN	0.4	0.7	0.8	0.7	
	SD	0.23	0.42	0.39	0.32	
	N	8	8	8	8	
	Period: Wee	ak 4				
	MEAN	0.4	0.6	0.8	0.9*	
	SD	0.14	0.17	0.35	0.51	
	N	8	8	8	8	
	76	0	0	0	0	
	Period: Wee				11.50	
	MEAN	0.4	0.6	0.8*	0.9*	
	SD	0.18	0.32	0.21	0.31	
	N	8	8	8	8	
•	Period: Wee	ek 13				
	MEAN	0.5	0.6	0.9	1.0*	
	SD	0.24	0.35	0.25	0.48	
	N	8	8	8	8	
	Period: Wee	ek 18				
	MEAN	0.4	0.6	0.4	0.7	
	SD	0.46	0.38	0.10	0.32	
	N	4	4	4	4	
	Period: Wee	k 26				
	MEAN	0.4	0.5	0.3	0.3	
	SD	0.33		0.14	0.14	
	N N	4	4	4	4	
	N	44	4	4	4	



### SUMMARY OF HEMATOLOGICAL TESTS TEST: Monocytes

STUDY ID: 097 STUDY NO: 097 SEX: FEMALE

ABBR: Monocytes	ANALYSIS OF	VARIANCE FOL	LOWED BY DU	INNETT'S PRO	CEDURE	UNITS: 10 <sup>3</sup> /cmm
,	GROUP(s):	0	0.1	2.0		mg base/kg/day
	Period: Wee	ek -3				
	MEAN	0.5	0.3	0.4	0.6	
	SD	0.27	0.21	0.18	0.16	
	N	8	8	8	8	
	Period: Wee	ek -1				
	MEAN	0.5	0.4	0.4	0.7	
	SD	0.40	0.28			
	N	8	8	8	8	
	Period: Wee	ek 2				
	MEAN	0.5	0.4	0.4	0.6	
		0.28				
	N	8	8	8	8	
	Period: Wee	ek 4				
	MEAN	0.4	0.3	0.7*	0.8*	
	SD	0.25	0.13	0.27	0.26	
	N	8	8	8	8	
	Period: Wee	ek 8				
	MEAN	0.3	0.4	0.6	0.7*	
	SD	0.12	0.29	0.25	0.27	
	N	8	8	8	8	
•	Period: Wee	k 13				
	MEAN	0.4	0.3	0.7	1.1*	
	SD	0.17	0.24	0.41	0.50	
	N	8	8	8	8	
	Period: Wee	k 18				
	MEAN		0.4	0.5	0.8	
	SD	0.10	0.14	0.24		
	N	4	4	4	4	
	Period: Wee					
	MEAN	0.3	0.4	0.4	0.6	

0.13

0.21

0.31

0.34

SD

WBC corrected for NRBC = or > 10

<sup>\*-</sup>Significant Difference from Control P < .05



# SUMMARY OF HEMATOLOGICAL TESTS TEST: Eosinophils

STUDY ID: 097							SEX: MALE
STUDY NO: 097						17641	TS: 10^3/cmm
ABBR: Eosinophil	ANALYSIS OF	VARIANCE FOL	LOWED BY DI	NNETT'S PRO	CEDURE	ONI	15: 10 3/CHM
	GROUP(s):	0				mg bas	
	Period: Wee						
		0.2	0.3	0.3	0.4		
	SD	0.2	0.22		0.30		
	N	8	8	8	8		
	N			0	0		
	Period: Wee						
	MEAN	0.2			0.3		
	SD	0.15	0.34	0.13	0.30		
	N	8	8	8	8		
	Period: Wee	k 2					
		0.2	0.3	0.2	0.3		
		0.19		0.17			
	N	8	8	8	8		
	10	6.					
	Period: Wee	eK 4					
	MEAN	0.2	0.3 0.26	0.3	0.2		
	SD		0.26		0.12		
	N	8	8	8	8		
	Period: Wee	k 8					
	MEAN	0.3	0.4	0.4	0.5		
	SO	0.09		0.17	0.21		
	N	8	8	8	8		
•	Period: Wee	k 13					
	MEAN		0.4	0.3	0.5		
	SD	0.21	0.31	0.28	0.42		
	N	8	8	8	8		
	Period: Wee	ե 10					
		0.3	0.2	0 /	0.6		
	SD		0.08	0.4			
	N	4	4	4	4		
	М	**	140	**	**		
	Period: Wee						
	MEAN	0.3	0.4	0.6	0.4		
	SO	0.10	0.22	0.59	0.13		



# SUMMARY OF HEMATOLOGICAL TESTS TEST: Eosinophils

STUDY ID: 097 STUDY NO: 097 ABBR: Eosinophil SEX: FEMALE

UNITS: 10^3/cmm

ABBR: Eosinophil	ANALYSIS OF	VARIANCE FOL	LOWED BY DU	NNETT'S PR		UNITS: 10.3/cmm
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: We					
		0.1	0.3	0.2	0.3	
	SD	0.06	0.21	0.15	0.35	
	N	. 8	8	8	8	
					_	
	Period: Wee					
	MEAN	0.2	0.3 0.18	0.2	0.2	
	SD	0.19	0.18		0.17	
	N	8	8	8	8	
	Period: Wee	ak 2				
	MEAN		0.3	0.1	0.1	
		0.23	0.32	n 12	0.08	
	N	8	8	8	8	
	n		0	0	0	
	Period: Wee					
	MEAN	0.2	0.4*	0.1	0.2	
	SD	0.20		0.15	0.11	
	N	8	8	8	8	
	Period: Wee	ek 8				
	MEAN	0.1	0.3	0.2	0.3	
		0.17				
	N	8	8	8	8	
•	Period: Wee	b 17				
		0.2	0.3	0.2	0.3	
	SD	0.22		0.14	0.25	
	N	8	8	8	8	
	Period: Wee					
		0.2 0.10	0.3	0.2	0.3	
	SD			0.10		
	N	4	4	4	4	
	Period: Wee	k 26				
	MEAN	0.3	0.6	0.1	0.6	
	SD		0.65	0.13	0.38	
	N	4	4	4	4	

# SUMMARY OF HEMATOLOGICAL TESTS TEST: Basophils

STUDY ID: 097 STUDY NO: 097 SEX: MALE

ABBR: Basophils						UNITS: 10^3/cmm
	ANALYSIS OF	VARIANCE FOR	LOWED BY DU	JNNETT'S PRO	CEDURE	
	GROUP(s):		0.1			mg base/kg/day
***************************************	Period: Wed					
		0.0	0.0	0.0	0.0	
	SD			0.00		
	N	8	8	8	8	
	Period: Wee	ek -1				
	MEAN	0.0	0.0	0.0	0.0	
	SD	0.00	0.00	0.00	0.00	
	N	8	8	8	8	
	Period: Wee	ek 2				
		0.0	0.0	0.0	0.0	
	SD	0.00	0.00	0.00	0.00	
	N	8	8	8	8	
	Period: Wee	ek 4				
	MEAN	0.0		0.0	0.0	
	SD	0.00	0.00	0.00	0.00	
	N	8	8	8	8	
	Period: Wee					
	MEAN	0.0	0.0	0.0	0.0	
	SD	0.00	0.00	0.00	0.00	
	N	8	8	8	8	
	Period: Wee					
	MEAN		0.0	0.0	0.0	
			0.00	0.00	0.00	
	N	8	8	8	8	
	Period: Wee			4.1		
	MEAN	0.0	0.0	0.0	0.0	
	SD	0.00		0.00	0.00	
	N	4	4	4	4	
	Period: Wee					
	MEAN	0.0		0.0	0.0	
	SD	0.00	0.00	0.00	0.00	

4



# SUMMARY OF HEMATOLOGICAL TESTS TEST: Basophils

STUDY ID: 097						SEX: FEMALE
STUDY NO: 097 ABBR: Basophils						UNITS: 10 <sup>3</sup> /cmm
Abbit. basopiires	ANALYSIS OF	VARIANCE FOL	LOWED BY DU	JNNETT'S PRO	CEDURE	011.101.100,011.11
	GROUP(s):	0	0.1	2.0	6.0	mg base/kg/day
	Period: Wee					
	MEAN	0.0	0.0	0.0	0.0	
	SD			0.00	0.00	
	N	8	8	8	8	
	Period: Wee	k -1				
	MEAN	0.0	0.0	0.0	0.0	
	SD	0.00	0.00	0.00	0.00	
	N	8	8	8	8	
	Period: Wee	L 2				
	MEAN		0.0	0.0	0.0	
		0.0	0.00			
	SD			0.00	0.00	
	N	8	8	8	8	
	Period: Wee					
	MEAN	0.0	0.0	0.0	0.0	
	SD	0.00	0.00	0.00	0.00	
	N	8	8	8	8	
	Period: Wee	k 8				
	MEAN	0.0	0.0	0.0	0.0	
	SD	0.00		0.00	0.00	
	N	8	8	8	8	
•	Period: Wee	L 17				
	MEAN	0.0	0.0	0.0	0.0	
	SD	0.00	0.00	0.00		
	N N	8	8	8	0.00	
	М	0	٥	0	0	
	Period: Wee					
	MEAN	0.0	0.0	0.0	0.0	
	SD	0.00	0.00	0.00	0.00	
	N	4	4	4	4	
	Period: Wee	k 26				
	MEAN	0.0	0.0	0.0	0.0	
	60	0.00	0.00	0.00	0.00	

0.00

4

0.00

4

0.00

4

0.00

4

SD

N



#### ORGAN WEIGHT SUMMARY (% BODY WEIGHT)

STUDY: 097 SEX: MALE

ALL FATES DAYS: 91-92 ALL BALANCES ANALYSIS OF VARIANCE USING DUNNETT'S PROCEDURE

WWWT1212	ANALISIS OF VARIANCE USING DUNNETT'S PROCEDURE									
	GROUP:	(1) 1M	(2) 2H	(3) 3H	(4) 4H					
Adrenals (% BODY WEIGH	MEAN SD N	0.010 0.0047 4	0.014 0.0036 4	0.013 0.0024 4	0.017 0.0046 4					
Brain (% BODY WEIGHT)	MEAN SD N	0.746 0.0619 4	0.706 0.0675 4	0.723 0.0647 4	0.827 0.1600 4					
Heart (% BODY WEIGHT)	MEAN SD N	0.898 0.0712 4	0.853 0.0804 4	0.876 0.0882 4	0.953 0.0849 4					
Kidneys (% BODY WEIGHT	MEAN SD N	0.485 0.0128 4	0.504 0.0205 4	0.507 0.0617 4	0.558 0.0638 4					
Liver (% BODY WEIGHT)	MEAN SD N	2.449 0.1686 4	2.607 0.2833 4	3.066 0.4269 4	3.866* 0.5855 4					
Spleen (% BODY WEIGHT)	MEAN SD N	0.303 0.0491 4	0.299 0.0513 4	0.409 0.0908 4	0.580* 0.1947 4					
Testes w/Epidid. (% BOC	Y WEIGHT MEAN SD N	0.130 0.0390 4	0.169 0.0231 4	0.165 0.0406 4	0.196 0.0277 4					
Thyroids-Parathyroids (	MEAN SD N	0.010 0.0015 3	0.013 0.0048 4	0.011 0.0023 4	0.015 0.0057 4					

<sup>(1)-0</sup> mg base/kg/day (2)-0.1 mg base/kg/day (3)-2.0 mg base/kg/day

Table 9.2

	ORGAN WEI	SHT S	UMMARY	(% BOD	Y WEIGH	T)	
STUDY: 097 SEX: FEMALE	ALL FAT ANALYSIS	ES C OF VARIA	AYS: 91-92	ALL BAL	ANCES COCEDURE		***********
		GROUP:	(5) 1F	(6) 2F	(7) 3f	(8) 4F	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
	Adrenals (% BOOY WEIGHT	MEAN SD N	0.014 0.0038 4	0.014 0.0025 4	0.015 0.0013 4	0.016 0.0059 4	
	Brain (% BODY WEIGHT)	MEAN SD N	0.735 0.0813 4	0.898 0.1052 4	0.900 0.1410 4	0.880 0.0949 4	
	Heart (% BODY WEIGHT)	MEAN SD N	0.852 0.0619 4	0.959 0.1261 4	0.969 0.1633 4	0.889 0.0198 4	
	Kidneys (% BODY WEIGHT)		0.439 0.0246 4	0.461 0.0373 4	0.490 0.0493 4	0.502 0.0371 4	
	Liver (% BODY WEIGHT)	MEAN SD N	2.674 0.0647 4	2.753 0.5699 4	3.443* 0.3494 4	3.470* 0.2169 4	
	Ovaries (% BODY WEIGHT)		0.011 0.0043 4	0.013 0.0045 4	0.009 0.0032 4	0.011 0.0020 3	
	Spleen (% BODY WEIGHT)	MEAN SD N	0.268 0.0220 4	0.329 0.0707 4	0.453 0.1117 4	1.071* 0.2153 4	
	Thyroids-Parathyroids (	MEAN SD N	7EIGHT) 0.011 0.0024 4	0.014 0.0045 4		0.014 0.0035 4	
	Uterus (% BODY WEIGHT)	MEAN SD N	0.076 0.0678 4	0.061 0.0342 4	0.070 0.0740 4	0.075 0.0413 4	

<sup>(5)-0</sup> mg base/kg/day (6)-0.1 mg base/kg/day (7)-2.0 mg base/kg/day

Table 9.3

# THIRTEEN WEEK ORAL TOXICITY STUDY OF WR 238605 WITH A THIRTEEN WEEK RECOVERY PERIOD IN DOGS

#### ORGAN WEIGHT SUMMARY (% BODY WEIGHT) STUDY: 097 ALL FATES DAYS: 182-183 ALL BALANCES ANALYSIS OF VARIANCE USING DUNNETT'S PROCEDURE SEX: MALE (2) (1) (3) 1M GROUP: 2M 4M 3M Adrenals (% BODY WEIGHT) MEAN 0.010 0.012 0.013 0.015\* 0.0019 SD 0.0022 0.0008 0.0021 Brain (% BODY WEIGHT) MEAN 0.680 0.675 0.687 0.689 SD 0.0642 0.0767 0.0682 0.0803 N Heart (% BODY WEIGHT) MEAN 0.840 0.843 0.907 0.934 SD 0.0402 0.1114 0.1188 0.1324 Kidneys (% BODY WEIGHT) MEAN 0.509 0.533 0.531 0.506 SD 0.0597 0.0485 0.0702 0.0546 Liver (% BODY WEIGHT) MEAN 2.320 2.543 2.643 2.828 SD 0.2361 0.2705 0.2094 0.3193 Spleen (% BODY WEIGHT) 0.310 MEAN 0.315 0.359 0.307 0.0703 0.1097 0.0657 0.0476 Testes w/Epidid. (% BODY WEIGHT) MEAN 0.187 0.174 0.191 0.174 0.0223 0.0259 SD 0.0132 0.0283 Thyroids-Parathyroids (% BODY WEIGHT) 0.013\* MEAN 0.009 0.009 0.014\* SD 0.0021 0.0012 0.0026 0.0017 N

<sup>(1)-0</sup> mg base/kg/day (2)-0.1 mg base/kg/day (3)-2.0 mg base/kg/day

<sup>(4)-6.0</sup> mg base/kg/day
\* - Significant difference P<.05



	ORGAN WEI	GHT S	UMMARY	(% BOD	Y WEIGH	IT)		*******
STUDY: 097 SEX: FEMALE	ALL FATI ANALYSIS	S DA	AYS: 182-18 ANCE USING	3 ALL BA	ALANCES ROCEDURE		*****	
		GROUP:	(5) 1F	(6) 2F	(7) 3F	(8) 4F	-	
	Adrenals (% BODY WEIGH	MEAN SD N	0.015 0.0035 4		0.015 0.0025 4			
	Brain (% BODY WEIGHT)	MEAN SD N	0.745 0.1410 4	0.711 0.0719 4	0.765 0.0517 4	0.783 0.1018 4		
	Heart (% BOOY WEIGHT)	MEAN SD N	0.799 0.1203 4	0.775 0.1390 4	0.859 0.1384 4	0.832 0.0722 4		
	Kidneys (% BODY WEIGHT	MEAN SD N	0.409 0.0423 4		0.431 0.0536 4	0.469 0.0191 4		
	Liver (% BODY WEIGHT)	MEAN SD N	2.425 0.2782 4		2.789 0.6472 4			
	Ovaries (% BODY WEIGHT)	MEAN SD N	0.014 0.0054 4	0.014 0.0046 4	0.013 0.0031 4	0.019 0.0082 4		
•	Spleen (% BODY WEIGHT)	MEAN SD - N	0.323 0.0199 4		0.338 0.0978 4			
	Thyroids-Parathyroids (	MEAN SO N	0.011 0.0014 4	0.009 0.0021 4	0.011 0.0022 4	0.010 0.0017 4		
•	Uterus (% BODY WEIGHT)	MEAN SO	0.092 0.0908 4	1.157 2.1270 4	0.090 0.0495 4			



#### ORGAN WEIGHT SUMMARY (% BRAIN WEIGHT)

***************************************	ONOM HELGHI	OTHIAKI	(% DRA.	TH METC	HI)				
STUDY: 097 SEX: MALE	ALL FATES DAYS: 91-92 ALL BALANCES ANALYSIS OF VARIANCE USING DUNNETT'S PROCEDURE								
	GROUP:	(1) 1M	(2) 2M	(3) 3M	(4) 4M	**********			
	Adrenals (% BRAIN WEIGHT) MEAN SD N	1.36 0.695 4	1.94 0.397 4	1.75 0.287 4	2.08 0.663 4				
	Heart (% BRAIN WEIGHT)  MEAN SD N	121.60 19.188 4	121.06 8.041 4	121.26 6.641 4	116.97 12.555 4				
	Kidneys (% BRAIN WEIGHT)  MEAN SD N	65.33 5.116 4	71.78 6.172 4	70.07 6.134 4	68.27 5.032 4				
	Liver (% BRAIN WEIGHT)  MEAN SD N	330.49 38.673 4		424.46* 47.561 4	470.60* 24.148 4				
	Spleen (% BRAIN WEIGHT)  MEAN SD N	40.91 8.242 4	42.34 6.401 4		69.97* 15.844 4				
	Testes w/Epidid. (% BRAIN WEIG MEAN SD N	17.37 5.031 4	23.95 2.563 4	22.98 5.867 4	24.58 7.119 4				
	Thyroids-Parathyroids (% BRAIN MEAN SD N	WEIGHT) 1.34 0.146 3	1.76 0.570 4	1.55 0.224 4	1.94 0.972 4				

<sup>(1)-0</sup> mg base/kg/day (2)-0.1 mg base/kg/day (3)-2.0 mg base/kg/day

<sup>(4)-6.0</sup> mg base/kg/day

<sup>\*-</sup>Significant Difference from Control P < .05



#### ORGAN WEIGHT SUMMARY (% BRAIN WEIGHT) STUDY: 097 SEX: FEMALE ALL FATES DAYS: 91-92 ALL BALANCES ANALYSIS OF VARIANCE USING DUNNETT'S PROCEDURE (5) (6) 2F (8) 4F 3F (7) GROUP: Adrenals (% BRAIN WEIGHT) MEAN 1.84 1.60 1.77 SD 0.340 0.188 0.256 0.786 Heart (% BRAIN WEIGHT) 106.95 7.097 MEAN 116.84 107.96 101.85 SD 11.824 11.091 11.268 Kidneys (% BRAIN WEIGHT) 51.77 6.701 MEAN 60.11 55.07 5.098 5.046 5.272 Liver (% BRAIN WEIGHT) MEAN 367.60 308.81 387.66 399.52 43.059 50.366 SD 66.293 68.227 Ovaries (% BRAIN WEIGHT) MEAN 1.26 1.52 1.51 1.07 SD 0.751 0.678 0.587 0.093 Spleen (% BRAIN WEIGHT) MEAN 36.71 51.15 122.80\* 36.43 SD 4.091 3.997 12.883 28.050 N Thyroids-Parathyroids (% BRAIN WEIGHT) 1.53 1.54 1.52 MEAN 1.57 0.212 0.263 SD 0.579 N Uterus (% BRAIN WEIGHT)

MEAN

SD

11.01

10.812

7.14

4.806

9.01

11.283

8.43

4.464

<sup>(5)-0</sup> mg base/kg/day

<sup>(6)-0.1</sup> mg base/kg/day (7)-2.0 mg base/kg/day

<sup>(8)-6.0</sup> mg base/kg/day

<sup>\*-</sup>Significant Difference from Control P < .05

1.93\*

0.281

1.93\*

0.302

#### Table 10.3

### THIRTEEN WEEK ORAL TOXICITY STUDY OF WR 238605 WITH A THIRTEEN WEEK RECOVERY PERIOD IN DOGS

#### ORGAN WEIGHT SUMMARY (% BRAIN WEIGHT) STUDY: 097 ALL FATES SEX: MALE DAYS: 182-183 ALL BALANCES ANALYSIS OF VARIANCE USING DUNNETT'S PROCEDURE (1) (2) (4) (3) GROUP: 18 2M 4M 3M Adrenals (% BRAIN WEIGHT) MEAN 1.51 1.96 2.22\* 0.254 SD 0.317 0.217 0.375 N Heart (% BRAIN WEIGHT) MEAN 124.23 125.45 131.51 136.12 SD 11.359 14.775 6.651 14.041 Kidneys (% BRAIN WEIGHT) MEAN 79.94 77.19 74.55 13.542 14.503 SD 5.104 12.126 Liver (% BRAIN WEIGHT) MEAN 344.79 379.00 387.04 412.22 SD 60.512 46.066 54.677 18.890 Spleen (% BRAIN WEIGHT) MEAN 45.56 46.27 52.82 44.85 8.922 12.708 SD 13.200 6.772 Testes w/Epidid. (% BRAIN WEIGHT) 27.57 27.67 MEAN 25.95 25.23 4.062 2.967 1.876 1.535 SD

1.37

0.184

1.39

0.205

Thyroids-Parathyroids (% BRAIN WEIGHT)

MEAN

SD

<sup>(1)-0</sup> mg base/kg/day (2)-0.1 mg base/kg/day (3)-2.0 mg base/kg/day

<sup>(4)-6.0</sup> mg base/kg/day
\* - Significant difference P<.05</pre>



# ORGAN WEIGHT SUMMARY (% BRAIN WEIGHT) STUDY: 097 SEX: FEMALE ALL FATES DAYS: 182-183 ALL RALANCES

SEX: FEMALE	ALL FAT ANALYSIS	ES DA OF VARIA	YS: 182-18 NCE USING	3 ALL BA	ALANCES ROCEDURE		
****			(5) 1F	(6)		(8) 4F	
***************	Adrenals (% BRAIN WEIG		1.96	1.85	1.94	1.64	
		SD	0.270	0.201	0.205	0.199	
	Heart (% BRAIN WEIGHT)	) Mean	107.87	108,40	111.90	108.10	
		SD	7.052 4	108.40 11.033 4	11.489	21.085	
	Kidneys (% BRAIN WEIGH	MEAN	55.55	56.05	56.22	60.58	
		SO N		4.596			
	Liver (% BRAIN WEIGHT)	MEAN	328.95	348.56	362.84	395.86	
		SD N	30.562	69.861	64.689	65.485	
	Ovaries (% BRAIN WEIGH	T) MEAN	1.79	1.97	1.64	2.48	
		SD	0.486	1.97 0.740 4	0.489	1.224	
	Spleen (% BRAIN WEIGHT	) MEAN	44.75	41.49	44.96	44.89	
		SD	9.441	6.886	15.084	7.268	
	Thyroids-Parathyroids		WEIGHT)	1.22	1.42	1.27	
•		SO N	0.255	0.208	0.248	0.381	
	Uterus (% BRAIN WEIGHT	) MEAN	11.18	179.65	11.94	19.65	
	,	SD	8.576	333.633	6.957	9.662	

Table 11.1

***************************************		ORGAN	WEIGHT	SUMMARY	(ABS	OLUTE)	****************
STUDY: 097 SEX: MALE	ALL F. ANALYSI		AYS: 91-92 NCE USING	ALL BAL/	ANCES DCEDURE		
		GROUP:	(1) 1M	(2) 2M	(3) 3M	(4) 4M	
	BODY WEIGHT (KG)	MEAN SD N	11.0 0.57 4	10.8 0.57 4	10.4 0.56 4	9.6 1.12 4	
	Adrenals (pr) (G)	MEAN SD N	1.08 0.485 4		1.31 0.189 4	1.60 0.450 4	
	Brain (G)	MEAN SD N	82.02 8.041 4	76.09 6.445 4	75.22 5.829 4	77.66 6.315 4	`
	Heart (G)	MEAN SD N	98.66 7.157 4		91.03 5.687 4	90.35 5.857 4	
	Kidneys (pr) (G)	MEAN SD N	53.32 2.670 4	54.42 3.708 4	52.79 7.254 4	52.79 1.059 4	
	Liver (G)	MEAN SD N	269.66 26.857 4	280.72 23.914 4	318.09* 30.776 4	364.36* 11.850 4	
	Spleen (G)	MEAN SD N	33.09 4.127 4	32.17 4.965 4	42.74 10.574 4	54.61* 14.612 4	
	Testes w/Epidid. (pr)	(G) MEAN SD N	14.28 4.173 4	18.20 2.115 4	17.14 3.822 4	18.86 4.694 4	
	Thyroids-Parathyroids	(G) MEAN SD N	1.08 0.163 3	1.34 0.419 4	1.17 0.221 4	1.46 0.658 4	

<sup>(1)-0</sup> mg base/kg/day (2)-0.1 mg base/kg/day (3)-2.0 mg base/kg/day

<sup>(4)-6.0</sup> mg base/kg/day
\* - Significant difference P<.05</pre>

Table 11.2

**********		ORGAN	WEIGHT	SUMMARY	(ABSOL	UTE)	
STUDY: 097 SEX: FEMALE	ALL ANALYS	FATES D	AYS: 91-92 NCE USING D	ALL BALA	NCES CEDURE		
***************************************		GROUP:	* *	(6) 2F	(7) 3F	(8) 4F	
••••••	BODY WEIGHT (KG)	MEAN SD N	9.3 1.15 4	8.6 1.27 4	8.6 1.42 4	8.3 0.98 4	•••••••••
	Adrenals (pr) (G)	MEAN SD N	1.25 0.241 4		1.24 0.192 4	1.28 0.586 4	
	Brain (G)	MEAN SD N	67.43 1.652 4		75.88* 2.420 4	72.01 3.663 4	
	Heart (G)	MEAN SD N	78.77 8.087 4	81.34 7.248 4	81.78 6.843 4	73.28 8.384 4	
	Kidneys (pr) (G)	MEAN SD N	40.53 3.673 4	39.39 6.025 4	41.77 3.989 4	41.22 2.587 4	
	Liver (G)	MEAN SO N	248.16 32.975 4	235.15 56.655 4	293.69 34.027 4	287.16 46.994 4	
	Ovaries (G)	MEAN SO N	1.03 0.535 4	1.15 0.551 4	0.81 0.428 4	0.90 0.104 3	
	Spleen (G)	MEAN SD N	24.80 3.323 4	27.61 2.145 4	38.89 10.249 4	87.78* 16.033 4	
	Thyroids-Parathyroid	ls (g) MEAN SD N	1.03 0.141 4	1.19 0.448 4	1.15 0.238 4	1.12 0.237 4	
	Uterus (G)	MEAN SD N	7.51 7.566 4	5.48 3.920 4	6.76 8.355 4	6.12 3.288 4	

<sup>(5)-0</sup> mg base/kg/day (6)-0.1 mg base/kg/day (7)-2.0 mg base/kg/day

<sup>(8)-6.0</sup> mg base/kg/day
\* - Significant difference P<.05</pre>



ORGAN WEIGHT SUMMARY (ABSOLUTE) STUDY: 097 ALL FATES DAYS: 182-183 ALL BALANCES ANALYSIS OF VARIANCE USING DUNNETT'S PROCEDURE SEX: MALE (1) (2) (3) GROUP: 1M 2M 34 4M BODY WEIGHT (KG) MEAN 11.6 10.8 11.3 11.3 0.80 SD 0.84 0.79 1.10 Adrenals (pr) (G) MEAN 1.17 SD 0.151 0.203 0.299 0.168 N Brain (G) MEAN 78.51 75.57 77.54 74.09 8.550 4.043 9.390 SD 5.577 Heart (G) MEAN 96.88 94.28 101.98 100.46 SD 4.431 6.841 7.506 12.046 Kidneys (pr) (G) MEAN 58.49 59.84 59.70 54.46 SD 5.274 7.446 1.220 3.804 Liver (G) 267.73 30.590 MEAN 285.02 300.01 305.73 SD 44.152 23.798 45.750 Spleen (G) MEAN 35.28 33.12 36.19 40.81 10.821 SD 11.931 9.441 5.486 Testes w/Epidid. (pr) (G) 19.50 18.69 3.315 2.544 1.130 1.300 Thyroids-Parathyroids (G) MEAN 1.49\* 1.41\* 1.08 1.04 SD 0.202 0.093 0.188 0.105 N

<sup>(1)-0</sup> mg base/kg/day

<sup>(2)-0.1</sup> mg base/kg/day (3)-2.0 mg base/kg/day

<sup>(4)-6.0</sup> mg base/kg/day - Significant difference P<.05

Table 11.4

••••••		DOZNI I					
		JRGAN	WEIGHT	SUMMAR	Y (ABSOI	LUTE)	***************************************
STUDY: 097 SEX: FEMALE	ALL FAT	TES DA	YS: 182-18 NCE USING	3 ALL B.	ALANCES ROCEDURE		
			(5)	(6)	/7\	(8)	
		GROUP:	1F	2F	(7) 3F	4F	
	BODY WEIGHT (KG)	MEAN	10.1	10.6	9.6		
	700 700 700	SD N	1.33	0.85	0.92	1.12	
	Adrenals (pr) (G)	MEAN	4.75	4.70	4 44	4 22	
		MEAN SD N	1.45 0.179 4	1.38 0.164 4	1.41 0.180 4	1.23 0.057 4	
	Brain (G)						
		MEAN SD N	74.15 4.819 4	75.04 4.711 4	72.72 4.287 4	75.26 5.986	
	L = 16			4	~	4	
	Heart (G)	MEAN	79.76	81.48	81.04	80.78	
		SD N	2.387	11.300	4.611	12.757	
	Kidneys (pr) (G)						
	, transport of the second	MEAN SD N	40.98 2.146 4	42.04 4.152 4	40.80 1.706 4	45.48 5.202 4	
	12.55 403			•			
	Liver (G)	MEAN SD N	242.81 7.464 4	262.27 60.012 4	261.93 34.082 4	297.10 49.394 4	
	Ovaries (G)						
	0741163 (0)	MEAN SD N	1.35 0.431 4	1.48 0.576 4	1.19 0.313 4	1.83 0.813 4	
	Spleen (G)	MEAN	32.95	31.18 5.888	32.64	33.83	
		SD	6.063	5.888	10.547	6.794	
	Thyroids-Parathyroids	(G)					
		MEAN SO N	1.10 0.133 4		1.02 0.128 4	0.94 0.217 4	
	Uterus (G)	MEAN SD N	8.54 7.095 4	133.48 247.225 4	8.56 4.705 4	14.76 7.337 4	

<sup>(5)-0</sup> mg base/kg/day (6)-0.1 mg base/kg/day

<sup>(7)-2.0</sup> mg base/kg/day (8)-6.0 mg base/kg/day



Contract No.: DAMD17-92-C-2001

Task Order No.: UIC-5A

UIC/TRL Study No.: 097

Table 12

#### THIRTEEN WEEK ORAL TOXICITY STUDY OF WR238605 WITH A THIRTEEN WEEK RECOVERY PERIOD IN DOGS

Summary of Microscopic Lesions<sup>a</sup>

			Dose (mg base/kg/day)						
ORGAN - lesion	Sex	0	0.1	2.0	6.0	0 - R	0.2 - R	2.0 - R	6.0 - R
LUNGS	М	0/4 (0.00)	0/4 (0.00)	2/4 (0.50)	4/4 (2.50)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)
- Alveolar proteinosis	F	0/4 (0.00)	0/4 (0.00)	4/4 (1.00)	4/4 (2.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	2/4 (0.50)
	,	0,4 (0.00)	0/4 (0.00)	4/4 (2.55)	474 (2.00)	3.7 (0.00)	0.1 (0.00)	0.1 (0.00)	(/
- Subacute inflammation	М	1/4 (0.25)	2/4 (0.50)	4/4 (2.50)	4/4 (3.25)	2/4 (0.50)	2/4 (0.50)	3/4 (0.75)	4/4 (1.25)
	F	2/4 (1.00)	4/4 (1.25)	4/4 (2.75)	4/4 (2.25)	3/4 (0.75)	1/4 (0.50)	4/4 (1.00)	4/4 (1.50)
- Chronic inflammation	М	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	2/4 (0.75)	3/4 (1.00)
	F	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	1/4 (0.50)	1/4 (0.25)	2/4 (0.50)	0/4 (0.00)
SPLEEN	М	0/4 (0.00)	0/4 (0.00)	1/4 (0.25)	2/4 (0.50)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)
- Extramedullary hematopoiesis	F	0/4 (0.00)	0/4 (0.00)	1/4 (0.25)	3/4 (1.25)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)
	1	374 (0.00)	0,1 (0.00)	17 (0.20)	\$11 (C.25)	(0.00)	(111)		
- Hemosiderin pigment	М	0/4 (0.00)	1/4 (0.25)	1/4 (0.50)	3/4 (1.00)	2/4 (0.75)	1/4 (0.25)	1/4 (0.25)	2/4 (0.50)
	F	0/4 (0.00)	0/4 (0.00)	3/4 (1.00)	4/4 (1.25)	1/4 (0.25)	0/4 (0.00)	3/4 (0.75)	3/4 (1.00)
LIVER - Hemosiderin pigment	М	0/4 (0.00)	0/4 (0.00)	2/4 (0.75)	1/4 (0.75)	0/4 (0.00)	0/4 (0.00)	1/4 (0.25)	2/4 (0.75)
	F	0/4 (0.00)	1/4 (0.25)	2/4 (1.00)	4/4 (2.25)	0/4 (0.00)	0/4 (0.00)	4/4 (1.00)	3/4 (1.25)
- Kupffer cell hypertrophy	М	0/4 (0.00)	0/4 (0.00)	1/4 (0.25)	2/4 (0.75)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)
	F	0/4 (0.00)	0/4 (0.00)	1/4 (0.50)	4/4 (2.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)
- Subacute inflammation	М	0/4 (0.00)	1/4 (0.25)	1/4 (0.25)	1/4 (0.75)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)
	F	0/4 (0.00)	0/4 (0.00)	1/4 (0.50)	4/4 (1.75)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)
- Hepatocyte necrosis	М	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	2/4 (0.50)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)
	F	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)
THYMUS - Lymphocyte depletion	М	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	3/4 (1.75)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)
	F	0/4 (0.00)	0/4 (0.00)	1/4 (0.50)	1/4 (0.25)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)
BONE MARROW									
- Hypercellularity	М	0/4 (0.00)	1/4 (0.25)	1/4 (0.25)	4/4 (1.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)
	F	0/4 (0.00)	0/4 (0.00)	4/4 (1.00)	4/4 (1.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)	0/4 (0.00)
- M/E Ratio	М	-	NE	1	1		NE	NE	NE
	F		NE	1	. ↓	_	NE	NE	NE

<sup>\*</sup>Incidence (mean group severity) - Determined by dividing the sum of all severity scores for a finding by the number of tissues examined. See Pathology Report in Appendix 11.

R = Recovery groups

NE = No effect

DRAFT

Contract No.: DAMD17-92-C-2001

Task Order No.: UIC-5A UIC/TRL Study No.: 097

BODY WEIGHT (kg)

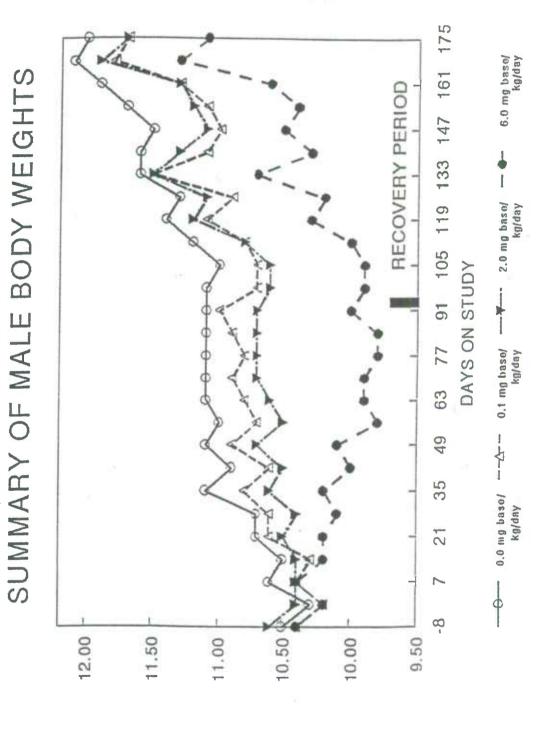


FIGURE 1

Contract No.: DAMD17-92-C-2001 Task Order No.: UIC-5A

UIC/TRL Study No.: 097

